

COMMITTEE WORKSHOP
BEFORE THE
CALIFORNIA ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:)
)
Informational Proceeding and)
Preparation of the 2005 Integrated) Docket No.
Energy Policy Report) 04-IEP-01
)
Re: Electricity Environmental)
Performance Report Scoping)
and Data Collection)
_____)

CALIFORNIA ENERGY COMMISSION
HEARING ROOM A
1516 NINTH STREET
SACRAMENTO, CALIFORNIA

MONDAY, NOVEMBER 15, 2004

9:09 A.M.

Reported by:
Peter Petty
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COMMISSIONERS PRESENT

John Geesman, Presiding Member

James Boyd, Associate Member

ADVISORS PRESENT

Chris Tooker

Michael Smith

STAFF and CONTRACTORS PRESENT

Jim McKinney

Ron Wetherall

Matthew Layton

Dale Edwards

Rick York

Dick Anderson

Natasha Nelson

Eileen Allen

ALSO PRESENT

Sarah Jaffe
Natural Resources Defense Council

Diane I. Fellman, Attorney
Florida Power and Light Energy, LLC

Steven Kelly
Independent Energy Producers Association

Michael Tollstrup
California Air Resources Board

Mohsen Nazemi
South Coast Air Quality Management District

ALSO PRESENT

Barbara Toole O'Neil
United States Environmental Protection Agency

Jane Turnbull
League of Women Voters

Chris Tufon
Pacific Gas and Electric Company

Steve Hill
Bay Area Air Quality Management District

David Hanson
Sacramento Municipal Utility District

Banky E. Curtis
California Department of Fish and Game

Kathy Treleven
Pacific Gas and Electric Company

Russ Bennett
City of Redding Municipal Utility

Steve Rothert
American Rivers

Rita Norton
League of Women Voters

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1 P R O C E E D I N G S

2 9:09 a.m.

3 PRESIDING MEMBER GEESMAN: I'm John
4 Geesman, the Commission's Presiding Member of its
5 2005 Integrated Energy Policy Report Committee.
6 To my left is Commissioner Jim Boyd, the Associate
7 Member of the 2005 Committee.

8 This is a Committee workshop on scoping
9 and data collection for the electricity
10 environmental performance report, an extremely
11 important topic, and feeds into much of the
12 analysis that the Commission will be doing in the
13 2005 IEPR cycle.

14 It's also an area where the interests
15 and demands of the public and the various other
16 governmental agency constituencies which our
17 process serves have grown quite a bit. And as a
18 consequence I think the staff will be addressing
19 some of the needs, not only of the Energy
20 Commission, but of other governmental agencies
21 that our process seeks to incorporate.

22 With that, I see Mike Smith,
23 Commissioner Boyd's Advisor has joined us.
24 Commissioner Boyd, do you have anything to say?

25 COMMISSIONER BOYD: Just to thank you

1 and echo what you said, and agree that this
2 workshop becomes incredibly important to the 2005
3 IEPR. And I think with that we should just move
4 into it.

5 PRESIDING MEMBER GEESMAN: Jim.

6 MR. McKINNEY: Good morning, everybody,
7 welcome. My name is Jim McKinney; I'm the Project
8 Manager for the Electricity Environmental
9 Performance Report. I'll be making the opening
10 presentation on behalf of staff and then my staff
11 colleagues will join me as we go through this.

12 So, first, just a couple of logistical
13 items. First of all, can I get a sense for how
14 many people have joined us on the phone? Anybody?
15 Anybody out there? Okay.

16 For those of you, if you are on the
17 phone, please use mute or otherwise keep the
18 background noise to a minimum because it can be
19 distracting.

20 The way we're going to run the workshop
21 this morning, as I said, I and others of the
22 Energy Commission Staff will make some
23 presentations. Then for each topic we're going to
24 ask government agency representatives to make any
25 comments or remarks that they would like to make.

1 And then we'll open it to energy producers,
2 stakeholders, environmental groups, et cetera, for
3 each subject area.

4 On agenda item 2C I have allocated some
5 space for those of you who might want to make very
6 general comments on the scope of this Electricity
7 Environmental Performance Report or the preceding
8 one.

9 I want to make sure that we all have
10 good time for discussion and commentary. At the
11 same time I think our Commissioners have an
12 engagement at 1:00, so we will kind of move
13 through this smartly until 12:45, at which point
14 we'll take a 45-minute lunch break and then
15 reconvene in the afternoon.

16 So, again, we'll have introductory and
17 the first set of technical comments in the
18 morning. And those will be on scoping issues.
19 And then the afternoon we will move to forms and
20 instructions for the environmental data requests.

21 So, with that I will just begin the
22 introductory presentation.

23 As Commissioner Geesman said, the
24 Electricity Environmental Performance Report is
25 one of a series of environmental reports feeding

1 the 2005 Energy Report. This slide just shows
2 that the legislative direction from the
3 legislation SB-1389, as introduced by Bowen and
4 Sher in 2002, does two main things.

5 First is it directs us to develop
6 policies to protect the environment, and that's as
7 we are developing the other energy policy
8 recommendations that we make to the Governor and
9 the Legislature.

10 Secondly, it directs us to include
11 environmental issues and all the energy trends and
12 assessments work that we do.

13 We did the first Environmental
14 Performance Report in 2001. That was pretty much
15 a stand-alone document. That was under SB-110.
16 Last report cycle in 2003 the Electricity
17 Environmental Performance Report was pretty much
18 the main environmental document that staff did and
19 contributed to our first 2003 Energy Report.

20 For 2005, as you can see on this slide,
21 we have five subject areas where the Commissioners
22 have directed staff to make a series of
23 investigations. So not just on power generation
24 and transmission, but as you can see, on petroleum
25 infrastructure, global climate change, water

1 energy and California/Mexico border energy and
2 environment issues. And many of these things are
3 follow-on items from the recommendations in the
4 2003 report.

5 So what is the Environmental Performance
6 Report? As I've said, it's a subreport to the
7 biennial Energy Report that our Commission submits
8 to the Governor's Office and Legislature every two
9 years.

10 Some things I want to emphasize. It's
11 systematic and it's science-based. By systematic
12 I mean it looks at every sector of our electricity
13 generation system in California. Traditionally
14 our agency and I think some of the regulatory
15 agencies tended to focus on thermal power
16 generation, or perhaps nuclear, and air emissions.

17 As all of you know and as you'll see in
18 some subsequent slides, we have an incredibly
19 diverse power generation system and there's some
20 that we just don't know very much about.

21 Again, we use science and quantitative
22 data as much as possible. The Legislature did not
23 ask us for our opinion, it asked us to really do a
24 detailed assessment of the issues and trends with
25 our power generation system.

1 I think it's useful to talk a little bit
2 about what environmental performance is. Thermal
3 efficiency is kind of a standard measure. That's
4 the heat rate for the thermal units. Another part
5 of it is, you know, what are the gross discharges.
6 How much emissions, effluent, waste, water, land
7 resources or habitat resources are used up as we
8 develop and generate our power systems. So those
9 are kind of what I call gross level discharges and
10 resource uses.

11 We also track the rates of change and we
12 track the pollution controls and major mitigation
13 devices that have been placed on those.

14 Part of, but distinct from,
15 environmental performance is the environmental
16 quality effects that each of these discharges or
17 resources uses has on the local receiving system,
18 whether that's an air basin, a water shed, or a
19 set of community issues and community resources.

20 We are moving towards doing more
21 environmental quality work. For the most part we
22 focus on tracking discharges and resource uses.

23 Lastly a measure that we are working
24 towards defining and using in the future is what I
25 call environmental efficiency. And that's the

1 unit of environmental impact per unit of power
2 generated. We've done some preliminary work on
3 that, and as you'll see in last year's report and
4 some of the presentations today, how many acres of
5 endangered species habitat does it take to site a
6 new combined cycle unit, et cetera.

7 This has been our traditional approach.
8 We tend to work at the broad scale, so state and
9 regional level discharges and emissions. And it's
10 both by environmental media and the generation
11 sector. So, as I said before, we look at total
12 amounts of discharges, rates of change in the 1996
13 baseline.

14 We have a '96 baseline that we're
15 continually enhancing and beefing up. We chose
16 1996 because that was the time that AB-1890 was
17 passed, and the legislative interest initially was
18 what's going to be the change in the system from
19 the old regulatory approach to the new market-
20 oriented approach.

21 Trends in thermal efficiency,
22 Regulatory trends, key issues and areas of
23 concern. These are something that we're working
24 to pull out of the report.

25 The assessment work that we do is based

1 on data and analyses that we generate here at the
2 Energy Commission by staff. Our colleagues in
3 other agencies, the good data and regulatory
4 analyses that they do, academics, and then
5 stakeholder commercial information and assistance
6 on assessments, too.

7 It's important to note that this is not
8 a compliance report. I think just by definition
9 every generating unit in the state is assumed to
10 be in compliance with all of its regulatory
11 requirements and permit conditions. That's just a
12 given.

13 Our interpretation of what the
14 Legislature asked us to do is really look at what
15 are the performance issues and trends over the
16 longer term and at a broader scale for the way our
17 power generation system interacts with the
18 environment.

19 And then lastly, we don't just focus on
20 our jurisdictional areas; we go well beyond the
21 thermal units 50 megawatts and greater.

22 These are our general conclusions from
23 '03. We also had preliminary findings similar to
24 these in 2001. Staff is fairly satisfied with the
25 transient air emissions. We feel that they are

1 tightly controlled. They've been going down on a
2 per-unit basis. I think some of the reasons for
3 that is that the regulatory system we have for air
4 emissions in California is very robust between the
5 air districts, the Air Board and the permitting
6 work that we do.

7 We're quite satisfied with the progress
8 that's been made on those. That doesn't mean that
9 there aren't air quality issues. It doesn't mean
10 that there isn't still work to do, but it does
11 mean that we feel pretty comfortable with that.

12 In contrast I would say that the next
13 frontier in environmental impact assessment and
14 mitigation is aquatic habitat impacts. And the
15 two main areas where we get this is in once-
16 through cooling from coastal power plants and at
17 inland rivers and streams from the hydro power
18 sector.

19 And just to give you a little bit of
20 numbers, we have 21 coastal plants; a total of
21 23,000 megawatts of capacity. That's two-thirds
22 of our thermal fleet and one-third of our total
23 generation capacity of about 60,000 megawatts. So
24 staff feels strongly that there's potential for
25 significant adverse effect associated with those

1 cooling plants. We really don't have enough data
2 to be definitive. It's been problematic in our
3 siting cases and there are new federal regulations
4 coming up to address that, as well.

5 The second part, hydro system, generally
6 thought of as clean, no air emissions. But if you
7 talk to Fish and Game, the State Water Board, NOAA
8 Fisheries, Fish and Wildlife Service you quickly
9 learn that there really are a lot of serious
10 environmental issues associated with the
11 hydropower system. And at 14,000 megawatts that's
12 the second biggest part of California's generation
13 fleet.

14 Talk about this in terms of
15 environmental tradeoffs, and I'll let you read
16 through these examples by yourself, but we here at
17 staff feel that we really need better data and
18 better assessments so we can present these
19 tradeoffs to our Commissioners as they go through
20 the policy formulation work that they're
21 responsible for.

22 In addition to what I said about thermal
23 units and air emissions, aquatic resource impacts
24 from coastal power plants, and the hydro sector,
25 we really don't have a good understanding of how

1 renewables and the transmission system affect
2 biological resources or land uses or community
3 issues here in California.

4 Renewables is slated to grow. And our
5 transmission system needs to grow. And we need to
6 better understand how expansion of those sectors,
7 which are just critically important for
8 reliability, are going to affect biological
9 resources.

10 And then for power plant imports we
11 really don't understand what the environmental
12 footprint is of the energy that comes into
13 California, and that generally averages about 20
14 percent a year.

15 These are the four main policy areas
16 that were included in the 2003 Energy Report.
17 These were based on staff recommendations and
18 other work that the Commissioners and their
19 Committees did.

20 So, fresh water use for power plant
21 cooling; there needs to be demonstration that
22 really is the most environmentally -- it's only to
23 be used with alternatives or environmental
24 undesirable or economically unsound.

25 Climate change. We have a series of

1 measures we're looking at, and that's a major
2 stand-alone report. The Energy Commission also
3 invests significant amount of public money into
4 climate change research in California.

5 Cross-border issues. I mentioned
6 serious water and air quality issues on the
7 border. And then hydropower licensing.

8 Turning to 2005, this is what staff is
9 proposing to the public and to our Committee for
10 work. We want to continue the status and trends
11 elements that we've done in the first two reports.
12 And we'll break these out by sector and then by
13 environmental media.

14 So, natural gas, nuclear, hydro, coal,
15 renewables and electric transmission. And as I
16 said before, we'll assess charges for each of the
17 media and the community resources involved. You
18 can read those for yourself.

19 Last year both of our Commissioners
20 directed us to look more closely at regional and
21 subregional effects, power generation; so we are
22 doing that this time around. And also the
23 sectors, and this, for example, in the natural gas
24 fleet we've got four major elements, combined
25 cycle steam plant, single cycle turbines and the

1 cogeneration sector. We've talked about those
2 very comfortably at an aggregate level, but we
3 haven't really dug in yet to look at the four
4 sectors and the issues involved therein.

5 Also we're going to start looking more
6 closely at out-of-state imports, as I mentioned.
7 And one of the drivers for that is to track the
8 climate change emissions associated with those
9 plants.

10 Staff has also proposed a series of
11 white papers or special focus topics that would
12 look more in depth at these series. There's six
13 of them there. Environmental justice, climate
14 change and hydro generation, hydro energy and
15 environment, once-through cooling, avian mortality
16 and then the policy reviews from the 2003 report.
17 We want to see how we're doing on implementing
18 those.

19 For the most part staff is not proposing
20 any research in these areas. We seek to compile
21 the existing data that we can find and present a
22 good package to, again, the public, the
23 Legislature and our Commissioners. And this will
24 be modeled on the hydropower paper that we did
25 last year that integrated environmental issues,

1 cost issues, reliability issues really for the
2 first time.

3 The second major part of what we propose
4 to do for 2005 is a series of environmental data
5 requests to producers and some of our fellow
6 agencies.

7 One of our findings from '03 is that we
8 really did not have enough environmental data to
9 do the full-scale assessments that the Legislature
10 directed us to do. The Commissioners have
11 authorized us to proceed with our data requests,
12 and I imagine that will be a good source of
13 discussion for today.

14 These next two slides here are busy. There's
15 a lot of information, and I'm not going to go
16 through them in detail, so you can look at them.
17 If you can't read your handout they are posted on
18 the website.

19 But basically what this does is try to
20 list out each of the main generation sectors that
21 we're going to be looking at in the report. Kind
22 of our basic level of knowledge. This is a
23 qualitative assessment. And then a qualitative
24 assessment of what's the current level of ongoing
25 impact.

1 And just some of the points that I want
2 to highlight here. Again, our system is
3 incredibly diverse and you can read that for
4 yourself. If you added about 6000 megawatts of
5 dedicated out-of-state coal, it makes it even more
6 diverse, a little more complicated for us because
7 we have been very proud to say that California has
8 a very clean generation mix. But we haven't
9 included coal emissions in that. So this time
10 we're going to do that a little differently.

11 Also, as you can see from these slides,
12 we know a lot about air emissions in the thermal
13 part of the fleet. There's some other areas like
14 once-through cooling where we really don't
15 understand very much, and we're concerned about
16 the potential for adverse effect.

17 And those are the ones that are the most
18 troubling to us, where we really don't know very
19 much, but the data suggests that there may be
20 significant effect out there.

21 I mentioned coal. There's a lot that we
22 don't know about that. And, again, the renewables
23 fleet; that is going to grow; it's an important
24 part of the sector. And we want to understand it
25 better.

1 And these are the parts of the renewable
2 sector that we'll be looking at, wind, waste
3 energy, small hydro, solar thermal and geothermal.

4 So that concludes my presentation.

5 Again, just to go to the formal of what we're
6 going to do today. For each of the technical
7 areas that we'll have, staff will make an
8 introductory presentation. We'll then ask our
9 government colleagues to come up and make any
10 remarks they may have. Then we'll open it to the
11 public for stakeholder, producer and environmental
12 group comments.

13 Our Commissioners will feel free to ask
14 clarifying questions of you or staff at any point.
15 That always makes for good dialogue. Please use
16 the microphone; speak into it. State your name
17 clearly for the record. We do have a court
18 reporter here this morning so we need your name
19 and affiliation.

20 We are accepting written comments
21 through November 29, and we encourage all parties,
22 whether you're making an oral presentation or not,
23 to submit written comments into the record.

24 The agenda timeframes on here are
25 estimates. We'll move through them kind of as

1 time allows. If we hit a topic where there's
2 really a lot of discussion I may carry that over
3 to the afternoon, because we want our
4 Commissioners to hear as much of the different
5 viewpoints as possible for this morning.

6 So, again, I propose that we will just
7 kind of cruise right through until 12:45 unless
8 Commissioners or others think that we need a
9 morning break. I think, as most of you know,
10 bathrooms are out in this part of the lobby. If
11 you want to speak, please fill out a blue
12 speaker's card and we'll carry that up to the
13 Commissioners.

14 For those of you on the telephone who
15 are joining us, the PowerPoint presentations are
16 available on the website so you can follow along.
17 I ask that you use the mute button or be quiet
18 until we open it for public comment on the topic
19 in which you are interested in.

20 With that, unless there are any more
21 questions or remarks from the dais, I'll turn it
22 over to Ron Wetherall, who will give us an
23 overview of the electricity system in California.

24 MR. WETHERALL: Good morning. My name
25 is Ron Wetherall; I work in the electricity

1 analysis office. I'm here today to talk about an
2 overview of the California electricity system.

3 There's four major components: Of
4 course, generation; transmission; distribution;
5 and the system operators who run the dispatch and
6 are responsible for providing system reliability.

7 California gets its generation from a
8 variety of owners. We have merchant generators
9 which are typically utilities from other states
10 that are not directly regulated by the PUC.

11 Qualifying facilities, municipal
12 utilities, regulated investor-owned utilities,
13 federal and state government projects, and then
14 imports from other states, such as western states
15 like Nevada, Arizona, Colorado, et cetera, Mexico
16 and Canada.

17 And, of course, the last category is
18 self generators. Those individual companies that
19 chose to generate their electricity for their own
20 use.

21 This chart just kind of gives a breakout
22 of ownership. You can see the merchant category
23 has the most capacity, and then followed by munis,
24 QFs and IOUs.

25 Here's a chart that shows installed

1 capacity by fuel type. Natural gas is on the far
2 left side, and nuclear, coal, geothermal, wind,
3 biomass and solar.

4 This chart shows wind generation which
5 was built, on the very bottom you can see blue,
6 back starting in the 1900s, hydroelectric was the
7 only real source of electricity for large-scale
8 use. As you can see in the '40s we started adding
9 some oil and gas plants. In the 1980s the QFs
10 came on line, so we have a lot more different
11 types of technologies being used. And the last
12 two decades you can see we've added mostly natural
13 gas.

14 This chart here gives an idea of -- it's
15 a time series from 1983 to 2001. Across the
16 bottom you can see hydroelectric, and in the years
17 where hydro tends to be low, like '87 and '88,
18 '94, what happens is other resources such as
19 natural gas tend to make up the difference. The
20 same goes for imports in the years where energy
21 imports are not as available, natural gas is the
22 technology that tends to make up the difference.
23 We call this swing.

24 Here's a slide that shows the patterns
25 of daily demand by year. As you can see from

1 January to April it's not real spikey. You see
2 the weekends are the low points, so it's fairly
3 consistent. But when you start going between May
4 and September you can see quite a bit of
5 spikiness, and that shows the difference between
6 the lowest demands for electricity and the highest
7 demands.

8 And what's significant about this slide
9 is you can see that our system is very -- has a
10 wide amount of variation between the hottest days
11 and the average.

12 Here's a slide that shows the typical
13 profile for a daily demand. And on the bottom in
14 gray are the baseloaded plants, such as the coal
15 plants and geothermal, other things that run full
16 out. The blue is hydro. And the aqua color is
17 load following year-round. It's going to be
18 natural gas. The little sliver of orange on top
19 of that represents the difference between it's
20 load following for the summer months. And then at
21 the very top is the peakers.

22 Here's the same type of a slide showing
23 off-peak profiling. You see it looks a little bit
24 different. We don't have the load following and
25 peaker plants at the same configuration.

1 This slide here is to give an idea of
2 the scope of load duration curve. And what it
3 shows is across the bottom the number of hours in
4 a year; and it's arranged so that all the highest
5 peak demand days are on the left. So what you get
6 is a curve showing a percentage of amount of time
7 that we are at a certain level.

8 For instance the peak demand is at
9 51803, as you can see in the top of the slide.
10 And if you come down to the next arrow, which is
11 about 1 percent of the year, you see the cutoff is
12 46,000 megawatts. So that gives you an idea of
13 how steep the demand is for the number of hours
14 that we're spending at these higher levels.

15 As I mentioned before, baseload plants
16 are those that run full out all the time. They
17 don't go up and down with load. Those plants are
18 coal, nuclear and large hydro plays a role in
19 this, as well.

20 Load following plants are mostly natural
21 gas, but large hydro also has the ability to ramp
22 up and down with demand. And then there's peaker
23 plants which just come on at the peak demand
24 periods.

25 As I mentioned before, swing is the

1 situation that happens to make up when during
2 years the precipitation is low and reservoirs are
3 drawn down, natural gas plants are utilized more
4 to make up for the decreased hydroelectric
5 generation. And the same thing occurs in years
6 when there's less energy available for imports,
7 natural gas tends to make up the difference. So
8 those plants will run higher in those periods.

9 Here's our supply/demand outlook for the
10 next ten years. Basically this graph is showing
11 that in a one-in-ten summer, which is the top
12 black line, the one-in-ten summer things look okay
13 out until about 2007, 2008. At that point we're
14 relying on emergency demand programs.

15 This assumption is based on the fact
16 we're not adding any new plants that do not
17 already have contracts. So this is just based on
18 the most conservative approach we can take. As
19 new information becomes available, as new
20 developers suggest plants, we revise this thing.
21 So this outlook is just to be a planning tool
22 basically, saying this is how it looks today.

23 The lower line in blue with the
24 triangles just shows what an average summer demand
25 would look like. And under average conditions we

1 appear to be okay out to 2009 or 2010.

2 Some concerns for the 2004 IEPR update.
3 Reserves in southern California are unacceptably
4 low under normal and hot conditions. So
5 statewide, even though we may be okay, there are
6 certain areas such as southern California that we
7 are a little bit more concerned about.

8 There's also concerns with congestion in
9 the Bay Area, being able to move power around
10 during peak periods when it's needed.

11 Statewide, reserves are low, as I
12 mentioned, under hot conditions. And there's also
13 a concern about aging power plants. If power
14 plants retire in such a way that we can't find
15 replacements for them in time, they could also
16 cause possible problems with both reliability and
17 the ability to meet load.

18 Talk a little bit about aging power
19 plants. As part of this report, part of the
20 update of last year's report we've done a report
21 on aging power plant issues; it's available on the
22 web.

23 Market forces are currently working to
24 retire uneconomic plants. This is because these
25 plants either have poor heat rates, primarily they

1 have poor heat rates; they're not able to compete
2 with the newer plants.

3 Aging power plants do, however, provide
4 reliability and congestion management benefits.
5 And we want to be careful that we can assure that
6 new generation will be available to take their
7 place when these plants retire. And that's one of
8 the subjects of the aging power plant report.

9 They found that plants that are ont
10 under contract are at significant risks of
11 retirement, and moreover, the power plant study
12 suggests that the threat to reliability from
13 retirements should not be under-estimated. So
14 that is something that we are looking at and
15 considering at this time.

16 Resource adequacy requirements may be
17 one way we can mitigate the reliability concerns
18 requiring the load serving entities to contract
19 for their own needs. That's one way that we might
20 be able to mitigate these concerns.

21 As I mentioned before there are some
22 local areas that we're concerned about. Southern
23 California, the reserves are unacceptably low
24 under normal and hot conditions.

25 Statewide, under hot conditions, one-in-

1 ten we need new resources by 2008. Regional and
2 local transmission congestion limit resource
3 options, meaning that because we have transmission
4 congestion we may have enough capacity within the
5 state to meet demand theoretically. But because
6 we can't get it to where it's needed, it can cause
7 reliability problems.

8 And then the last bullet here,
9 potentially aging power plant retirements make
10 further reduced reserves. They are counted, even
11 though they don't run. And if they were to be
12 retired we wouldn't be able to count them anymore.

13 Demand side management is one of the
14 areas that may be able to help with California's
15 load. What we have in California isn't really a
16 capacity problem, per se, it's a peaking problem.
17 During most of the year we have sufficient
18 capacity to meet our demand. It's during those
19 few hours during the hot summer months that we
20 really have a problem with resource adequacy.

21 And these types of things can be handled
22 by demand side management programs, peak-shifting
23 programs, time-of-use meters and rates. And the
24 Energy Commission is working to encourage those
25 types of policies.

1 From the 2003 Integrated Energy Report
2 we have these recommendations. Implement the
3 Energy Action Plan and loading order. The first
4 in the loading order is accelerate demand response
5 programs. Second, increase energy efficiency.
6 Third, increase the use of renewable electricity.

7 Improve sharing of existing resources
8 and increase distributed generation. And finally,
9 comprehensive transmission planning. And all of
10 these elements are underway.

11 Finally, to summarize. California's
12 electricity supply is provided by a diverse set of
13 generation facilities located instate, the western
14 United States and Canada.

15 The overall fuel efficiency of the
16 generation system has improved and will continue
17 to improve as new combined cycle plants are added.

18 The intermediate load following capacity
19 played by natural gas plants will provide
20 respondent swings in the system availability of
21 generation by using hydro -- for shortages of
22 hydro and imports.

23 Finally, aging power plants currently
24 provide congestion management benefits ancillary
25 services as well as energy. The manner in which

1 these plants are retired could have significant
2 impacts on reliability and/or affect control
3 operator dispatch decisions.

4 Any questions?

5 MR. McKINNEY: Great, thank you very
6 much, Ron. I think it's really important to
7 understand that the work that Ron and his
8 colleagues do in the electricity analysis office,
9 that really sets the foundation for the
10 environmental assessments that we do afterwards.

11 At this point I would like to open the
12 agenda to any speakers who have general comments.
13 And by general I mean just that. If you've got
14 extensive comments on more technical area, please
15 break up your comments and make them at the
16 appropriate points in the agenda.

17 PRESIDING MEMBER GEESMAN: Jim, I have
18 blue cards. Should I simply go through those now
19 in the sequence that --

20 MR. McKINNEY: Yeah, I haven't looked at
21 those, Commissioner, so I'm not --

22 PRESIDING MEMBER GEESMAN: But I've only
23 got three, so why don't we take those up now if
24 the speakers would like to address this at this
25 point in the agenda.

1 The first I have is Sarah Jaffe from the
2 Natural Resources Defense Council.

3 MR. McKINNEY: Yeah, go up to the
4 central microphone, please.

5 PRESIDING MEMBER GEESMAN: You need to
6 make certain the green light is on.

7 MS. JAFFE: It is on.

8 MR. McKINNEY: Okay.

9 MS. JAFFE: I'm Sarah Jaffe from the
10 Natural Resources Defense Council. We just wanted
11 to make clear our primary concern, which we're
12 happy was addressed in the general presentation,
13 is that the report include a full analysis of all
14 the energy consumed here in California, not just
15 that energy generate here.

16 So we're particularly concerned that
17 this should be reflected across the entire report,
18 not just in a particular section pertaining to
19 out-of-state emissions or something of that
20 nature. We think that the total should include
21 out-of-state emissions.

22 So, for instance, if you're going to
23 talk about nitrogen oxide emission rates, that
24 emission rate should reflect all of the energy
25 generated outside of the state as well as inside

1 of the state.

2 And we think it would be interesting if
3 we had, you know, both an emission rate for
4 instate, out-of-state, and then a total for all
5 electricity consumed which would allow a good
6 comparison.

7 And finally, we're hoping that the
8 resource mix, over time, which such as the graph
9 we just saw, also include out-of-state resources.

10 PRESIDING MEMBER GEESMAN: Not certain I
11 follow the last point.

12 MS. JAFFE: The graph that we saw that
13 was concerning different resources over time, you
14 know, the hydro and the coal and things like that,
15 we just want to make sure that those are including
16 all of those resources that we're procuring out of
17 state.

18 PRESIDING MEMBER GEESMAN: Okay. Thank
19 you. Diane Fellman, FPL Energy.

20 MS. FELLMAN: I actually wanted just to
21 address the avian issues later in the workshop, so
22 I had put that on the card.

23 PRESIDING MEMBER GEESMAN: That'd be
24 fine. Or you can do it now if you'd prefer.

25 MS. FELLMAN: Well, since I'm here.

1 Good morning, I'm Diane Fellman. I'm the newly
2 appointed Director of California Regulatory
3 Affairs for FPL Energy. So I'm here with a new
4 hat on today.

5 And what we are here today for is to
6 listen to the staff's proposals. We would like to
7 work with the staff in preparing this report and
8 share our information.

9 We're going to listen today and then
10 perhaps submit written comments if we find it
11 appropriate. But we know this is going to be a
12 long process and we really would like to see it as
13 a collaborative process working with the CEC
14 Staff, the agencies, as well as the actual turbine
15 operators.

16 We have a group that's loosely formed of
17 Altamont Turbine operators and we think we have a
18 lot of either on-the-ground or in-the-air
19 experience that we'd like to share. And we're
20 interested in improving what can be done.

21 We noticed in the update that repowering
22 was one of the main policy concerns. And we need
23 to look at how that can happen in a regulatory way
24 given the local, state and federal concerns.

25 So, thank you.

1 MR. MCKINNEY: Thank you.

2 PRESIDING MEMBER GEESMAN: Jim Caldwell,
3 PPM Energy. I didn't think I saw Jim in here, but
4 somebody gave me a card with his name on it.
5 Okay, Jim, back to you.

6 MR. MCKINNEY: Thank you, Commissioner
7 Geesman. With that I next want to introduce
8 Matthew Layton, senior air quality engineer in our
9 environmental office. Let me get his presentation
10 loaded up here.

11 I'd also like to note, we got a bigger
12 turnout than we'd expected, so we are running more
13 copies of the PowerPoint presentations and they'll
14 be available shortly on the outside table.

15 MR. LAYTON: Good morning; my name is
16 Matthew Layton. I'm with the air unit of the
17 siting division of the California Energy
18 Commission.

19 I'd like to talk today a little bit
20 about some of the items that we're going to look
21 at from the air perspective in the 2005 update.
22 To set that -- excuse me, the 2005 Environmental
23 Performance Report.

24 To set the stage for that I'd like to
25 talk a little bit about what we did in the 2001,

1 2003, 2004 Environmental Performance Reports that
2 we've done.

3 In 2001 we're looking at NOx and PM
4 emission trends and rates from '75 through 2000;
5 and we looked at some regions in California. 2003
6 we looked at NOx, PM10 and CO2, and also looked at
7 instate and out-of-state emissions for a much
8 smaller time period. We were trying to capture
9 some of the effects of the energy crisis in
10 2000/2001. So the timeframe for that study was
11 '96 through 2002.

12 Just recently we published a white paper
13 on the aging power plants as part of the 2004
14 Energy Report update. In that report we looked at
15 NOx, PM10, PM2.5 and CO2 emission rates, and also
16 the type of emission controls for those utility
17 boilers that were part of the aging power plant
18 study.

19 General findings to date. California
20 has poor ambient air quality. That said, various
21 sectors throughout California, including
22 generation, will probably need to improve their
23 emission rates, reduce their emissions, reduce
24 their environmental footprint to help California
25 attain better air quality.

1 We do have a relatively clean mix,
2 however, from the generation sector. That's due
3 to a diverse resource mix which Jim alluded to,
4 and also Ron. A lot of hydro, renewables. We use
5 a lot of natural gas, which is much cleaner from
6 an emissions perspective than other types of fuel
7 such as coal or oil. And also the generation we
8 do have instate is well controlled. About 85
9 percent of the generation that fires some form of
10 fuel has some form of controls.

11 Because of the predominance of natural
12 gas, the controls generally are only going after
13 NOx. There's not many PM10 controls available for
14 natural gas fired units.

15 We think the system averages should
16 continue to improve. The new resources that are
17 being added throughout the state continue to use
18 natural gas are cleaner and more efficient. And
19 also there are a few rules that are almost fully
20 implemented that we're requiring retrofit of some
21 of the emission control systems on some of the
22 existing generation.

23 Throughout this I'll refer to the fact
24 that California does have bad air quality. We
25 don't want to see any backsliding. We don't think

1 the generation sector should be allowed to not
2 implement -- this is the one-hour ozone throughout
3 the nation. California has some problems.

4 You also notice some of the other urban
5 areas in the west, Phoenix, El Paso, Dallas,
6 Houston also have problems with the one-hour
7 ozone. There's also Reno, which affects the whole
8 county, in Nevada. And then a lot of California
9 has poor air quality. That's why we don't think
10 there should be backsliding on any of these
11 regulations.

12 This is the new eight-hour standard.
13 The urban areas, again, are a problem throughout
14 California, Texas, the Denver region. California,
15 as you can see, has significant problems from
16 the -- to attain the eight-hour ozone standard.
17 This goes to NOx emissions. NOx is a precursor to
18 ozone. And that's one of the reasons why it's
19 been very deliberately tried to control in
20 California.

21 This is the federal nonattainment for
22 PM10. It's a little more diverse throughout the
23 west, but California again has problems with PM10.
24 And so efforts to control PM10, and PM2.5
25 therefore, will be important and perhaps

1 additional reductions will come from the
2 generation sector.

3 Quick summary of 2001 Environmental
4 Performance Report. NOx and PM10 emission rates
5 from the generation sector significantly improved
6 from '75 through 2000, decreasing almost by 80
7 percent, both the NOx emissions and emission
8 rates. PM10 emission rates also reduced about 75
9 to 80 percent in that timeframe.

10 Remarkably emissions from the generation
11 sector were concentrated in the four most
12 developed and most populated regions of
13 California, where all the power plants are, as
14 well. These are emissions from the generation
15 sector.

16 We, at the time, said that local air
17 quality strategies will continue to consider power
18 plant emissions in their attainment strategies.
19 And we had recommended that the next Environmental
20 Performance Report look at distributed generation
21 and PM2.5 emissions.

22 In 2003 we found once again that NOx and
23 PM10 emissions and emission rates are low. This
24 was due to the broad use of emission controls and
25 also the predominance of natural gas. And a very

1 diverse generation resource mix. And also due to
2 a well defined, and as Jim had said, a robust air
3 regulatory infrastructure throughout the state.

4 We did find that out-of-state power
5 plants did have higher emission rates. In
6 response to Sarah Jaffe's comments, NOx emission
7 rates out of state are about five times that of
8 the instate average. This is due to a high
9 reliance on coal. But more importantly it's due
10 to a different air quality study, different air
11 quality regulations in place out of state.

12 If you remember the ozone nonattainment
13 out of state it was located in the urban areas of
14 say Phoenix or Dallas or Houston, not where a lot
15 of these coal plants are located. So therefore
16 the NOx regulations on these power plants located
17 out of state, while they are higher, the air
18 regulations are not as stringent.

19 In the 2003 Environmental Performance
20 Report we had suggested that the strategies
21 continue to implement the retrofit rules that were
22 in place already. And also continue -- look at
23 some retrofit rules that the Air Resources Board
24 was considering for peakers and cogenerators.

25 Also the Air Resources Board had

1 initiated a rulemaking on distributed generation.
2 They had required that by 2007 distributed
3 generation in the state would be as clean as
4 central station. They are now revisiting that
5 rule, not the level, not the emission level from
6 that rule, but the schedule for implementation.

7 We think that rule is a very aggressive
8 rule, being as clean as central station should
9 require distributed generation to be no worse than
10 the rest of the system. And therefore we think
11 that is a good solution to distributed generation.

12 Right now the South Coast is also
13 revisiting that rule and trying to implement the
14 distributed generation standards sooner rather
15 than 2007. We have recommended that we wait and
16 see what this technology review from ARB, what the
17 results are of that. And also if ARB has any
18 recommendations about the schedule, the 2007
19 schedule for implementation of these standards.

20 There's an interim level for distributed
21 generation between 2004 and 2007. There are
22 technologies now becoming available, some fuel
23 cells, some small microturbines. The IC engines
24 are having a harder time meeting these standards,
25 so that could be a problem for the deployment of

1 distributed generation in the form of internal
2 combustion engines.

3 In the 2004 Energy Report update, the
4 aging power plant study, the aging units,
5 primarily utility boilers, there are four
6 combustion turbine combined cycles in the fleet of
7 66 aging units that we looked at.

8 Remarkably the NOx emission rates for
9 these aging units, their average emissions was
10 much less than the statewide generation averages,
11 about 30 percent of the statewide averages. This
12 was due to the broad implementation of the
13 retrofit rules that were started in '95, or the
14 mid '90s, excuse me, requiring for the most part
15 selective catalytic reduction on these units.

16 The retrofit rules have been very
17 successful. NOx emissions are considerably down
18 from these aging power plants. The PM10 and PM2.5
19 emission rates are very comparable to the
20 statewide averages. That's expected because of
21 the use of natural gas in most of these boilers
22 and most of the generation units throughout the
23 state.

24 CO2 emission rates were slightly less
25 than the statewide generation averages. Again,

1 because of the predominance of natural gas in the
2 aging units. Some of the generation in the state
3 does use coal, it's base loaded. Coal does emit
4 more CO2 per megawatt hour than natural gas,
5 therefore the fact that the aging power plants are
6 slightly better than the statewide averages is not
7 unexpected.

8 The air implications of the retirements
9 or replacements of these units are very uncertain.
10 As Ron discussed, the load duration curve, or the
11 demand in California peaks in the summer months.
12 And in those summer months we rely on a certain
13 number of power plants to run for very short
14 periods of time. But at the same time the demand
15 dramatically increases.

16 Right now these aging units are filling
17 that particular part of the market. If we were to
18 retire some of these units perhaps peakers might
19 be the most appropriate technology to use.
20 Peakers generally have heat rates that are about
21 equivalent to these boilers. And also are
22 sometimes worse than these boilers.

23 So, the air emission implications of
24 that replacement of an aging boiler being replaced
25 by a peaker, we probably wouldn't see much benefit

1 from that.

2 Similarly, building new technologies and
3 trying to run them at such low capacity factors
4 may not be economic for the owners of these new
5 units. So we really don't know how air might
6 change with the replacement of some of these
7 boilers.

8 This is just shows the numbers from '75
9 to 2000. You can see that the total tons per day
10 has decreased dramatically, about 75, 80 percent.
11 And also the percentage that power generation
12 contributes to the total is down considerably.
13 NOx emissions are very low; PM10 and PM2.5
14 emissions are even lower as a percentage of total.
15 This does not suggest that California does not
16 need additional reductions from the generation
17 sector. California continues to have bad air
18 quality or poor air quality, and so the generation
19 sector will contribute reductions where they are
20 cost effective.

21 CO2 emissions, California generation
22 contributes about 16 percent of the total CO2
23 instate. If you look at out-of-state the
24 percentage, we do use a lot of out-of-state coal,
25 as well as hydro and nuclear. The total

1 percentage jumps up to about 30 percent; 30
2 percent of our CO2, that's accountable to energy
3 we consume within the state comes from generation.

4 Most states average about 40, 45
5 percent. So California emits less CO2 than an
6 average state. Most states use more coal than we
7 do. We have a very diverse mix of resources and
8 generation.

9 This is a very colorful graph. On the
10 right side you can see the electricity generation,
11 both the CO2 and the other greenhouse gases that
12 are included from the generation sector. What is
13 interesting about this is there's a small arrow
14 down at the bottom which you probably can't see.
15 Half of the CO2 emissions from the state come from
16 the mobile sector; about 15, 16 percent of the
17 greenhouse gases are CO2 come from the generation
18 sector.

19 We have talked a lot about the retrofits
20 that have occurred. We have suggested that there
21 is not a recommendation here that any backsliding
22 occur. But what we are interested in is if
23 additional reductions are required from the
24 generation sector, are they the most cost
25 effective reductions available.

1 I think the districts and the Air
2 Resources Board will be looking at this carefully.
3 There are certain generation units that are very
4 dirty, relative to the averages, and they may be
5 appropriate for retrofit at this point in time.
6 However, a lot of these units have low capacity,
7 don't operate much. They may be very dirty on an
8 emissions rate, but their total operation limits
9 their total emissions per year such that the tons
10 reduced per \$1 allocated to retrofit and achieve
11 those tons reduced may not rise to the level of
12 cost effectiveness.

13 And there's also the issue of during the
14 energy crisis there were a lot of plants that ran
15 into their retrofit rule requirements for retrofit
16 and they were out at the time we needed them. So
17 if there were additional retrofits required we
18 would like to see some coordination.

19 And there's always an issue of
20 increasing reliance on natural gas because
21 everybody is putting in natural gas.

22 And also other issues are where the next
23 power plants will be built. Would it be simpler
24 to try to build the power plants in a cleaner
25 region which wouldn't have such stringent rules.

1 Would there be transmission available. Or would
2 it be easier, more economic, quicker to build them
3 in an area that has perhaps more stringent
4 requirements in other words, L.A., let's say, but
5 there would be less transmission requirements.

6 One of the ongoing issues is PM2.5
7 inventories. The combustion process is
8 predominately produces the PM2.5 rather than PM10,
9 about 95 percent of the PM in the PM10 range is
10 actually PM2.5 So as we start to look at PM2.5
11 attainment strategies, the combustion processes
12 will become more important. In other words, the
13 generation sector will again be more important.

14 Right now generation only produces about
15 1 percent of the inventory for 2.5. However, on a
16 local level that could be more important. So
17 that's one of the things we'd like to look at.

18 And there's continued questions on how
19 we evaluate out-of-state generation.

20 So the topics for 2005, we're interested
21 in location, setting and season. The peakers
22 operate during the summer, which is also the ozone
23 season. They have generally higher emission
24 rates, but they operate for very short periods of
25 time. Therefore, they have not necessarily been

1 proven to be cost effective yet for emission
2 controls and emission reductions.

3 We'd like to look at the technology
4 used; that could be the combined cycle versus the
5 boiler versus the simple cycle versus the
6 cogeneration unit.

7 The fuels are important with renewables
8 becoming more important. Some biomass fuels will
9 be used. They generally are not very clean from
10 the criteria pollutant standpoint.

11 Also in the dispatching configuration,
12 cogeneration and peakers. Cogenerators are base
13 loaded because of their qualifying facility status
14 in their contracts. The peakers operate very
15 intermittently, and therefore have less total
16 emissions but can be very important, let's say, on
17 an ozone day.

18 In 2005 we'd like to look at the out-of-
19 state emission factors. Part of the problems --
20 one of the problems in looking at out-of-state
21 emissions is the contractual arrangements.
22 Certain electricity gets passed from hand to hand.
23 We don't necessarily know where some of the
24 electricity comes from, what plant produced it,
25 when it finally gets to our state. Whether it was

1 a nuclear plant; in some cases some electricity
2 has left the state generated here and come back to
3 the state. Is that an import or not?

4 We continue to make sure that we
5 understand the rules and regulations that are
6 applied to these power plants. What retrofit
7 rules might be coming down the pike for regulation
8 of generation, the generation sector. How that
9 might affect availability of power plants. How
10 that might shift generation to other power plants.

11 And in 2005 we'd like to look more at
12 the global climate change gases that are produced
13 both instate and out of state.

14 In previous studies we've tried to
15 capture most of the units, most of the megawatts.
16 That's about 675 units, not a very precise number.
17 There's about 1000 power plants in the state. A
18 lot of these are small hydro, large nuclear --
19 very few are large nuclear. But anyway, trying to
20 get a better handle on the emissions and where the
21 potential reductions might come from. We'd like
22 to look at all the power plants.

23 As the generation emissions have gone
24 down to such low levels, relatively low levels, a
25 particularly small plant that we didn't look at

1 before may be really dirty, and may actually have
2 a significant effect on local air quality, local
3 air emissions. So we'd like to try to capture all
4 the power plants and their emissions.

5 We'd like to look at some of the other
6 emissions that we've ignored. The volatile
7 organic carbons and compounds, sulfur dioxide.
8 They are precursors to particulate matter.
9 Currently the state is attainment for some of
10 these other standards, which we -- you know, the
11 carbon monoxide and SO2. But at the same time
12 we'd like to get a better handle on the footprint
13 of the generation sector and those emissions.

14 And also we'd like to try to look at the
15 air basins within the state, trying to match up
16 generation with emissions with regions within the
17 state.

18 Thank you. Any questions?

19 PRESIDING MEMBER GEESMAN: Steven Kelly
20 from Independent Energy Producers.

21 MR. KELLY: Thank you, Commissioners,
22 Staff. Steven Kelly with the Independent Energy
23 Producers.

24 Actually listening to the last
25 presentation I was actually surprisingly impressed

1 that the generation sector is actually doing
2 pretty well in California. And that we've
3 ratcheted down so well over the last couple years
4 on the emissions.

5 But then I was struck by the need to
6 look at every individual plant. And I was
7 impressed by the comment that the staff had made
8 that there was going to be some sort of cost
9 effectiveness test when looking at future
10 proposals and at plants. But I was wondering
11 where that's going to occur in this study process.
12 When do we get to look at that issue.

13 Because a lot of the units, the 1000
14 units that they're going to be looking at or would
15 like to look at are relatively small and so forth.
16 Collecting data can be difficult for some of
17 those, and for marginal effect. And I just wanted
18 to know when that integration is going to occur
19 here?

20 MR. LAYTON: We're not suggesting that
21 we're going to look at the cost effectiveness.
22 But we would hope that with this information,
23 which would be the environmental footprint of the
24 power plants and of the generation sector, the
25 districts could revisit their sources within their

1 jurisdiction. And then determine which units
2 might be appropriate for retrofit if they were
3 cost effective.

4 The cost effectiveness would be left to
5 the districts, that evaluation.

6 MR. KELLY: To each of the -- is --

7 MR. LAYTON: We're just trying to do the
8 footprint.

9 MR. KELLY: Okay. Is that something --
10 I mean I'd like to make a recommendation, maybe
11 the Commission consider that as part of this study
12 process, to look at that. You're going to have a
13 picture of the generation sector and the relative
14 impacts, I guess, or the absolute impacts of this,
15 which is going to look maybe isolated from the
16 statewide perspective as a whole. I'm wondering
17 if we can't integrate that component into this
18 study work.

19 MR. LAYTON: I think the districts have
20 a better handle on the other emissions sources
21 within their jurisdiction, not the mobile sector,
22 but other stationary sources, which we aren't
23 looking at. Dry cleaners, you know, lumber mills,
24 things like that that they would like to do their
25 own evaluation of what would be appropriate for

1 their business climate and their air quality.

2 I think it's important to understand
3 that the generation of emissions happen in the
4 context of other sources also emitting. And
5 therefore, if the reductions are available from
6 the generation sector they still may not be what
7 the district would like to pursue.

8 It's really up to the district, I think,
9 to actually pursue the reductions. We can define
10 the footprint, though.

11 MR. KELLY: So are you going to be using
12 the same data that the districts are going to be
13 using?

14 MR. LAYTON: Yes.

15 MR. KELLY: So you'll be going to the
16 districts for the data? Or are you going to go to
17 the generation sector for the data?

18 MR. LAYTON: It depends on where the
19 data is available. We're trying to gather all
20 this data. Some data is not necessarily
21 available; some districts don't necessarily have
22 the data. For some of these smaller units,
23 they're permitted, but they don't have continuous
24 emission monitors that provide the data from day
25 to day, year to year.

1 So we're trying to pull all these
2 different data sources together and be able to
3 define how the footprint looks today; how it might
4 evolve if we can rely on our electricity
5 assessments office, is generation going to go up
6 or down. That would help the districts decide
7 what might be the appropriate action for those
8 particular units.

9 MR. KELLY: Okay, thanks.

10 MR. LAYTON: You're welcome.

11 PRESIDING MEMBER GEESMAN: Thank you,
12 Steven. Other comments on air quality? I do have
13 a blue card from Mike Tollstrup from the Air
14 Resources Board. Did you want to say anything,
15 Mike?

16 MR. TOLLSTRUP: Good morning; I'm Mike
17 Tollstrup; I'm with the Air Board.

18 Just a couple of quick comments. One,
19 we're very supportive of the staff's workplan and
20 we will continue to work with them as we always
21 have on identifying emissions and impacts from
22 power generation facilities.

23 A couple of things that I think are real
24 important to mention. We have a fairly good idea
25 of how the power plants operate throughout the

1 state on a daily basis. What we don't have a good
2 handle on and what we're hoping we'll get some
3 information on is the impacts of some of the
4 energy policies that are coming down.

5 What happens when, you know, we have an
6 energy crisis? And how does that impact
7 emissions, either local or regionally? So we need
8 to get a better idea of that.

9 There's two additional areas that we
10 think need some work and we'd like to work with
11 your staff on. One is the distributed generation,
12 as Mr. Layton mentioned. We have an effort
13 underway right now to update our regs. We are, at
14 least for the new equipment that is going in,
15 we're making sure that we're getting the emissions
16 down.

17 What we don't have a good idea of is
18 where this stuff is. And what kind of an impact
19 it really has, whether it's minimal or not. We
20 don't have a good handle of that. So we'd like to
21 work with your staff on that.

22 The other area, the border plants, we've
23 been working with Mexico and some of the other
24 border states on identifying the plants across the
25 border, the thermal plants that have air quality

1 impacts within California; and trying to get them
2 to adopt rules and regulations that are as
3 stringent as ours.

4 And we'd like to encourage staff to look
5 at some of the other areas, as well, especially in
6 those plants that are along the border that do
7 have impacts here.

8 That's it. Thank you.

9 PRESIDING MEMBER GEESMAN: Thank you,
10 Mike.

11 COMMISSIONER BOYD: Mike, a quick
12 question. Good to see you. The last dialogue
13 between Mr. Kelly and the staff about getting --
14 about the data with respect to these generators
15 which vary in size dramatically.

16 And my assumption was, and the staff
17 answered it the way I would have assumed, is that
18 they're going to rely very heavily on the air
19 pollution programs in the local air districts for
20 that data.

21 Do you have a guesstimate of how much of
22 the field is covered with reasonably accurate data
23 and how big the voids might be with regard to
24 data?

25 MR. TOLLSTRUP: Well, I think that the

1 district programs are very good on the large
2 plants, you know; they have them under permit;
3 they collect data. We have a reasonably good idea
4 of what the emissions are from some of the larger
5 facilities.

6 Some of the smaller stuff, like I
7 mentioned distributed generation, the data's, you
8 know, probably -- especially really small stuff we
9 don't have any idea and we need to get more
10 information.

11 But again, as staff mentioned, you know,
12 there's really two parts. One is collecting the
13 information and determining what the impacts are.
14 And then the next step would be the districts, if
15 they felt like additional reductions or
16 regulations need to be adopted they would go
17 through their process in identifying the
18 information that's there, and move it from there.

19 I don't know if I answered your
20 question, but --

21 PRESIDING MEMBER GEESMAN: Well, you
22 just reinforced my thinking that this is
23 complicated.

24 MR. TOLLSTRUP: Very.

25 COMMISSIONER BOYD: And then another

1 question on the cross border. The staff is, of
2 course, deeply involved -- and including cross-
3 border issues in the 2005 IEPR update, having
4 referenced it in the earlier plan.

5 And secondly, the staff and this agency
6 is fairly deeply involved in the Board of
7 Governors energy worktable, which is trying to
8 identify along the entire border, not just
9 California, the California border with the
10 neighboring states of Mexico, what the various
11 kinds of facilities are and what-have-you.

12 But when it comes to generation there's
13 only two plants that are kind of infamous now that
14 keep coming to mind, and we're struggling to
15 make -- we're working, and I think it is a
16 struggle, to get an inventory of other plants.

17 But are you aware that there are a large
18 number of plants across the border from California
19 that might be affecting our air quality? My
20 recollection is that there aren't many.

21 MR. TOLLSTRUP: Yeah, I think our
22 information is similar to yours. I don't think
23 there's a lot. But we haven't done a lot of work
24 in looking into it to see if there's additional
25 facilities that we may not be aware of.

1 Again, the focus of what we've done has
2 been on the border and the recent power plants
3 that went across there. We're aware of two. And,
4 you know, there may be potential future
5 facilities. But the information is somewhat
6 lacking there.

7 COMMISSIONER BOYD: Okay. Well, we
8 definitely need to work together on that because
9 we, through the other forum that I mentioned, and
10 if there are other forums in terms of border
11 issues, are trying to get that same information.
12 So we definitely should collaborate on that.

13 Thanks very much.

14 MR. MCKINNEY: Commissioners, Mohsen
15 Nazemi has joined us from Los Angeles. We'd like
16 to give him an opportunity to speak.

17 MR. NAZEMI: Good morning, Commissioner
18 Geesman and Commissioner Boyd; thank you for the
19 opportunity to provide some input and comment
20 here. I want to commend the CEC Staff for
21 coordinating this very well. I personally
22 received a number of phone calls and emails
23 inviting me to this meeting. So, I appreciate the
24 effort you've put in here.

25 I also want to commend staff for

1 addressing a wide range of issues very
2 comprehensively in doing this environmental
3 report.

4 Our agency's goal has been to support
5 the California electricity demand while we're
6 protecting the air quality in our area. As you
7 know, South Coast is one of the extreme ozone
8 nonattainment areas, probably the only one in a
9 real sense. And even though this year we've had
10 the cleanest year on record in terms of air
11 quality, we still have 27 days exceeding the one-
12 hour ozone standards and 88 days exceeding the
13 eight-hour ozone standards. That's one out of
14 every four days. We have the highest one-hour and
15 eight-hour ozone readings.

16 As a result we had implemented a number
17 of programs in trying to address the electricity
18 issue in California. As you heard in your staff's
19 presentation there were retrofit rules that our
20 agency implemented a few years ago. And we had
21 the power plants that were part of our reclaim
22 program actually taken out temporarily so that
23 they could put in the necessary controls.

24 And there is one area that I'd like to
25 comment on the presentation made by staff

1 regarding the low capacity and few hours or days
2 of usage. Unfortunately, those are typically done
3 on the most worst ozone days in the year. So even
4 though they are very few, but the impact on the
5 air quality are not very few. They're
6 significant.

7 Our agency also has promoted clean new
8 generation. We amended our rules, our new source
9 review rule at the time when there was offset
10 scarcity and allowed the power plants who wanted
11 to build a new and efficient clean generation to
12 access our internal bank to get credits or offsets
13 for the construction.

14 We permitted approximately 4000
15 megawatts since 2000 and 60 percent of them are
16 online and operating today. There's another 1400
17 megawatts under permitting and review at this time
18 as we speak.

19 I also heard some comments about South
20 Coast maybe pushing forward with the 2007 CARB DG
21 standards. And, again, our concern is not that DG
22 should not be promoted. We actually believe clean
23 DG should be promoted and should be better
24 promoted. However, our decision to move forward
25 was based on available technology. And that's

1 under our best available control technology
2 program.

3 Some of the internal combustion engines,
4 even the cleanest ones, still put out eight times
5 more emissions on a pounds-per-megawatt basis
6 compared to a clean DG or clean power plant. So
7 that is still a concern with us.

8 And also we have concerns with plants
9 that do shut down. And these are plants that are
10 not shutting down because of retrofit rules, but
11 are just shutting down because of power contracts.
12 Just last month I got notice from a facility down
13 in our area that they want to shut down 700
14 megawatts and apply for ERC because of lack of
15 contract.

16 So it's not -- I feel that it's maybe
17 something that the Commission could address in
18 terms of looking at the staff's, your staff's
19 presenting, in terms of having lower reserves in
20 southern California on a one-in-ten or one-in-two
21 day summer season coming 2007 or that timeframe;
22 yet there are plants that are not -- that have
23 permits that are not building today because of
24 lack of power contract, and there are plants that
25 are shutting down because of lack of power

1 contracts.

2 So I think that may be an area you can
3 put a little bit more focus on. And I don't
4 recommend to do what the previous Administration
5 did, because we know what happened there.

6 So, in conclusion we have a few
7 recommendations. We want to support conservation
8 and demand side management. Also we want to
9 promote a clean air, more efficient new
10 generation, both on the central and on the
11 distributed generation side.

12 And on the distributed generation I
13 think there are still barriers that need to be
14 removed in terms of interconnection and so on and
15 so forth for maybe fuel cells, solar power, things
16 like that.

17 And then finally our agency has been
18 trying to promote this through our abilities, and
19 there's not very much left of this in that area,
20 in terms of environmental dispatch. And that is
21 the lowest emission facilities to be dispatched
22 first, and then leave the dirtier ones for the
23 last. And I think your agency and your Commission
24 is looking into that, as well.

25 So, with that, I appreciate again the

1 opportunity to comment today.

2 PRESIDING MEMBER GEESMAN: Mohsen, thank
3 you for your participation. And, as always, your
4 comments are quite helpful to us.

5 Your comment about the retiring plant,
6 was that by any chance the Long Beach plant?

7 MR. NAZEMI: Yes.

8 PRESIDING MEMBER GEESMAN: Okay. I
9 would commend to you the 2004 energy update that
10 the Energy Commission adopted, I think now, ten
11 days ago trying to address some of the problems
12 associated with these premature retirements.

13 And in particular, trying to shift
14 demand away from the peaks and also change the
15 contractual environment that many of those plants
16 face.

17 I'd also thank you for your contribution
18 to our record in the Riverside Power Plant siting
19 case and encourage, I believe that decision is
20 being published today or the Committee decision
21 is. And you may want to pick that up before you
22 head to the airport.

23 But, once again, thank you for your
24 involvement in our process. I think it's an
25 extremely constructive foundation from which we

1 can move forward.

2 MR. NAZEMI: Thank you.

3 COMMISSIONER BOYD: Thanks, Mohsen. I
4 was going to ask you about environmental dispatch,
5 but you brought it up. I think it's been a dream
6 of those in the air quality business, certainly
7 was when I was there, for a long, long time. The
8 electricity crisis didn't help that issue along at
9 all. So, that's still something on the agenda for
10 the future when we get the train totally back on
11 the track, so to speak.

12 So, thanks.

13 MR. NAZEMI: Thank you.

14 MR. MCKINNEY: Okay, do we have any
15 other speakers on air quality, either from
16 government or stakeholders?

17 MS. JAFFE: Hi, this is Sarah Jaffe
18 again with the Natural Resources Defense Council.
19 Thanks for letting me address you one more time.

20 We heard from the staff that they are
21 largely satisfied with air emissions from the
22 electricity sector. However, we feel that a lot
23 of those comments are not really taking into
24 account out-of-state emissions.

25 And while it is true that there are

1 different standards out of state and that they
2 don't have the problems that California has in
3 meeting air quality standards, we do feel that air
4 quality, particularly in the southwest, is getting
5 worse. There are reports of smog obscuring
6 national parks such as the Grand Canyon. And we
7 do feel it's our responsibility to take into
8 account those emissions that we're contributing to
9 out of state.

10 Furthermore, emissions such as carbon
11 dioxide and mercury have global, not just local,
12 impacts. So it's important to take those into
13 account, as well.

14 Given that, we have a few
15 recommendations for things we'd like to see
16 included in the report. First of all, emission
17 rates and total emissions for each major pollutant
18 over time, we'd particularly like to focus on
19 nitrogen oxides, sulfur dioxide, particulates,
20 carbon dioxide and mercury. And, of course, we
21 would like to see those include out-of-state
22 emissions.

23 Second, we'd like to see emission rates
24 by resource type. We'd like that to include
25 distributed generation particularly because of the

1 use of distributed generation in demand response
2 programs. And demand response is high preference
3 in the loading order.

4 We feel that some distributed generation
5 does not deserve to be so highly valued in
6 California's loading order. And we think that an
7 analysis of emission rates pertaining to different
8 kinds of distributed generation would help
9 policymakers make those decisions of which type of
10 demand response program should truly be valued so
11 highly. Because we do think some of them have
12 real environmental potential, and some of them
13 may, in fact, cause some problems.

14 We'd also like to see an analysis of
15 emission rates concerning possible future
16 resources, in particular advanced coal
17 technologies. This would also help policymakers
18 in the future accurately compare those new
19 technologies with technologies that we are already
20 using.

21 And finally, we'd like to see an update
22 of the inventory of greenhouse gas emissions. The
23 last inventory is about five years old and doesn't
24 include out-of-state greenhouse gas emissions. So
25 we think it's time to update that specifically

1 since we heard that we want to focus on global
2 climate change.

3 That's it, thank you very much.

4 PRESIDING MEMBER GEESMAN: Can I ask you
5 what you had in mind as it related to some of the
6 advanced coal technologies. Our PIER program
7 participates in some work, largely aimed at carbon
8 sequestration, but did you have other --

9 MS. JAFFE: Yes, specifically coal
10 gassification and carbon sequestration. We'd like
11 to see an analysis of the environmental impact of
12 those type of technologies so that going forward
13 we'll be able to accurately value them against,
14 you know, natural gas and other technologies.

15 PRESIDING MEMBER GEESMAN: Okay.

16 COMMISSIONER BOYD: A quick comment,
17 then maybe a question, if you would. Your
18 reference to a climate change, greenhouse gas
19 emission inventory update, I think it's underway
20 right now, --

21 MS. JAFFE: Okay.

22 COMMISSIONER BOYD: -- so, it's not part
23 of the IEPR, but part of the Commission's climate
24 change responsibilities, just for your
25 information.

1 Secondly, I was a little surprised by
2 the inclusion of distributed generation in the
3 category of demand response. That's a little
4 foreign to me as something that doesn't get --
5 that I don't think is too commonly connected, dg
6 and demand response.

7 MS. JAFFE: I think we're concerned that
8 some of the demand response programs that have
9 been suggested, and I think some that have been
10 approved going forward are allowing the use of
11 backup generation, which is essentially
12 distributed generation, you know, onsite.

13 And some of that is either diesel
14 generators or more commonly diesel generators
15 which have been converted to run on natural gas.
16 And we're just not sure that we fully understand
17 the environmental impacts of programs like that.

18 PRESIDING MEMBER GEESMAN: Yeah, our
19 nomenclature doesn't characterize that as demand
20 response. There may --

21 MS. JAFFE: Okay.

22 PRESIDING MEMBER GEESMAN: -- be other
23 agencies that do. When we use that phrase we
24 think in terms of advanced metering and the real
25 time tariffs or dynamic pricing tariffs to go

1 along with advanced metering.

2 MS. JAFFE: Okay, well, then maybe it
3 would be --

4 PRESIDING MEMBER GEESMAN: We don't have
5 a generation component.

6 MS. JAFFE: -- great if this report made
7 that clear so that -- so policymakers, you know,
8 fully understand what is meant by demand response.

9 PRESIDING MEMBER GEESMAN: And I do
10 think that some of the effort that staff has made
11 directed at self generation has attempted to
12 evaluate the impact from those backup generators.

13 MS. JAFFE: Okay, thank you very much.

14 PRESIDING MEMBER GEESMAN: Thank you.

15 MS. O'NEIL: Good morning; my name is
16 Barbara Toole O'Neil; I'm with the U.S.
17 Environmental Protection Agency here in Region IX.
18 I'd like to commend the staff on the report so far
19 today. I think they've done a very good job. We
20 certainly worked well with the CEC in 2001 during
21 the energy crisis then.

22 I'm not going to make any further public
23 comments today. We'll be preparing written
24 comments for the entire report, and we'll have
25 them by the 29th for you.

1 PRESIDING MEMBER GEESMAN: We certainly
2 welcome your ongoing participation in this
3 process, and are very appreciative of the
4 coordination we've been able to achieve before.

5 MS. O'NEILL: Thank you.

6 MR. McKINNEY: Any other speakers on air
7 quality issues?

8 MS. TURNBULL: Good morning,
9 Commissioners. I'm Jane Turnbull from the League
10 of Women Voters. Again, I'd like to commend the
11 staff on some excellent work at this point.

12 One area that the League is really
13 intrigued with, and has been, is distributed
14 generation. We've been disappointed because it
15 hasn't become a phenomena that -- or the phenomena
16 that was envisioned several years ago because of
17 the air considerations.

18 And I think one area that we would like
19 a little more attention paid to is the potential
20 for cogeneration as distributed generation. And I
21 think that might be a vehicle for both certainly
22 fostering self generation and improved
23 environmental benefits at the same time.

24 PRESIDING MEMBER GEESMAN: Thank you,
25 Jane. It certainly received a fair amount of

1 attention at the last meeting of the Energy Action
2 Plan agencies. And I do think that cogeneration
3 is going to receive quite a bit of attention from
4 the PUC this coming year in the context of their
5 efforts to assure that the QF contracts are
6 renewed and extended.

7 There's also a joint OII that this
8 Commission is collaborating with the PUC on in
9 terms of trying to better establish promotional
10 policies for distributed generation.

11 As I think you know, the PUC probably a
12 little more than a year ago adopted rulings
13 exempting up to 3000 megawatts of distributed
14 generation from most of the departing load fees.
15 And as a follow-on to that effort, we are
16 collaborating with them on this joint OII.

17 So I suspect there will be -- I'm not
18 certain you'll be satisfied at the end of 2005,
19 but there will be a lot more activity in the area
20 in 2005 addressing your concerns.

21 COMMISSIONER BOYD: And you certainly
22 have a strong ally in this Commissioner on the
23 subject of self gen, distributed gen and making
24 sure we're not -- we're utilizing all the excess
25 heat and what-have-you that we produce in a lot of

1 operations that aren't being used for that
2 subject. So I agree with you, it's something we
3 need to pursue.

4 MR. McKINNEY: Okay, unless there are
5 any more public comments I want to shift agenda
6 topics. Are you going to speak on air quality
7 issues?

8 MR. TUFON: Yeah, just a question I
9 have. Chris Tufon from PG&E. Just a question.
10 There's been some talk about environmental
11 dispatch. Is there any economic consideration
12 when that's talked about, or is it strictly purely
13 environmental?

14 PRESIDING MEMBER GEESMAN: My
15 recollection from when this topic came up and
16 Commissioner Boyd and I were a bit younger, in the
17 1970s. The principle was least NOx dispatch.
18 And, of course, then it was a utility-owned
19 generating fleet. And the principle was that
20 based on NOx emissions you'd establish your
21 dispatch in that fashion as opposed to an economic
22 dispatch.

23 COMMISSIONER BOYD: That's right. The
24 berth was least NOx dispatch. It's evolved into
25 environmental dispatch. And probably in this day

1 and age would take into account additional
2 pollutants.

3 And I broached it only today as I don't
4 think we're that far down the line to have a lot
5 of -- to be able to answer a lot of your questions
6 on the subject. It's still a hoped-for somewhere
7 down the line in the future after we kind of put
8 ourselves in the position to be able to address it
9 on both a, you know, environmental dispatch, cost-
10 efficient, and having adequate reserves to address
11 something like that.

12 So I think it's a little ways down the
13 road, but something obviously we still harbor an
14 interest in.

15 MR. McKINNEY: Okay. Thanks very much
16 to all our speakers and questions on air quality.

17 With that, I'd like to move to
18 environmental justice and socioeconomic. I'd
19 like to introduce Dale Edwards, who's supervising
20 planner for community resources. And let me load
21 up his presentation here. Dale is also our
22 program coordinator for environmental justice.

23 MR. EDWARDS: Good morning, everybody.
24 Again, Dale Edwards with the environmental
25 protection office here at the Energy Commission.

1 Just to give you kind of a brief rundown
2 of what we have done before in the area of
3 socioeconomics, as well as environmental justice,
4 I'll start off with socioeconomics.

5 And the reason why we want to talk about
6 socioeconomics is because this is one of the
7 primary areas where electric generation provides
8 some economic benefit to the communities in which
9 they are located.

10 We're roughly at the beginning of
11 collecting information about this. And, as a
12 matter of fact, it's been a little bit slow going
13 because we and other agencies, governmental
14 agencies, have not typically collected
15 socioeconomic information such as property taxes
16 paid, number of employees and other moneys that
17 are transferred to the state -- or rather state,
18 local government. So it's important to kind of
19 get a picture of that. And, as I say, we're kind
20 of in the infancy level of that.

21 Just to let you know that starting off
22 with the 2001 Environmental Performance Report we
23 have the staff work was on the socioeconomics that
24 resulted in several findings. The first two being
25 socioeconomic benefits of electricity generation

1 accrued to society in general. That's kind of an
2 obvious one.

3 As well as the socioeconomic drawbacks
4 tend to be at a local level. And this is -- we
5 refer to them as drawbacks, but they're typically
6 not very significant. But this would be impacts
7 on public facilities and services which typically
8 a power plant doesn't have that great of an
9 impact. But that is the drawback.

10 And also staff found that power plants
11 produced -- or rather in the EPR for 2001 there
12 was a table that was produced by staff showing
13 that the largest electricity producing counties
14 were also the largest consuming counties in the
15 state. As well as the information demonstrated
16 that although rural counties used the least amount
17 of energy, they were the largest users of
18 electricity per capita.

19 For 2003 -- I always have this problem
20 with my eyesight that I have to take my glasses
21 off to read and have to put them on to see any
22 further out. I'm the opposite of most people, I
23 think.

24 But anyway, for the 2003 EPR staff
25 presented a set of socioeconomic data for 17

1 selected power plants that had been certified by
2 the Energy Commission. This was our start at
3 trying to provide some middle database that kind
4 of indicated what the benefits the power plants
5 provide to society.

6 In the future we're going to be trying
7 to expand that dramatically with drawing on
8 basically those thousand or so power plants we
9 talked about earlier.

10 But this data includes the employment
11 for construction and operation, and the project's
12 estimated capital costs and property tax.

13 Staff also provided in the 2003 report
14 information on the difference of employment
15 between older steam boiler projects and the
16 current combined cycle plants. And just as a
17 rehash of that, it was about 40 to 50 operation
18 and maintenance personnel in the older steam
19 boiler projects to anywhere from two to 24
20 employees in the more current combined cycle
21 plants.

22 Information was also provided on the
23 Board of Equalization's property tax assessments
24 that began in January 2003. And staff also found
25 that there was a trend of locating the power

1 plants closer to load that tended to minimize
2 socioeconomic impacts due primarily to the large
3 locally available labor force.

4 For 2005 staff is going to be expanding
5 up to 26 from the 17 we did in 2003, projects that
6 we're going to provide the socioeconomic data on.
7 These are projects that are permitted by the
8 Energy Commission since 1996.

9 And staff is also going to expand on the
10 information we provided previously about the Board
11 of Equalization's property tax assessments. This
12 time we're going to discuss the different ways
13 that assessments are done for independent power
14 producers versus the independently owned
15 utilities.

16 As we understand it today they use an
17 income approach for the independent power
18 producers and they use a cost approach for the
19 IOUs. And that will be discussed in more detail
20 in the analysis we'll provide.

21 Staff will also provide a description of
22 the payments and contributions made by municipal
23 utilities. It's often been thought that in
24 essence they get a free ride because they don't
25 pay property taxes. But there is information that

1 we will be presenting that has been presented
2 before that indicates that, in fact, municipal
3 utilities pay more in payments and other transfer
4 payments, in other words, to local governments and
5 to the state. In fact, it's greater than what the
6 IOUs are paying.

7 For environmental justice, just a quick
8 look back at 2001. This was our first discussion,
9 or the first EPR in that sense. And in this case
10 for EJ we talked about a brief overview of the
11 Energy Commission's experience with environmental
12 justice and siting cases.

13 And we also provided an assessment of
14 socioeconomic and demographic effects from a
15 sampling of existing power plants.

16 In the 2003 Environmental Performance
17 Report we described the environmental justice and
18 its application to Energy Commission siting cases.
19 In other words how we apply it in our siting
20 cases.

21 We also presented the following
22 findings, that as of the census 2000 people of
23 color comprise the majority of California's
24 population. There is an increasing level of EJ
25 community involvement in our siting cases. And

1 that was primarily experienced in the San
2 Francisco Bay Area and the Los Angeles area.

3 Also, an interesting little data point
4 here is that between 1979 and 1995 when we look
5 back at what the populations were like around the
6 power plants that we sited during that period,
7 approximately -- well, it's not approximately, it
8 looks like pretty accurate -- 14.3 percent of
9 AFCs, or applications to this Commission, were
10 involved in communities where the population was
11 greater than 50 percent minority.

12 But from 1996 through 2002 50 percent of
13 those applications that we received were in
14 communities where the population was greater than
15 50 percent minority.

16 Now, for 2005 what staff intends to do -
17 - and this is going to swing back over into some
18 air quality information again a little bit, we're
19 going to make a very good attempt at this, at
20 least. We have to be, I guess, somewhat careful
21 that we don't want to get too specific with any
22 particular project. We're going to do this in a
23 more general fashion and that's probably good for
24 the level of community that we're talking about
25 anyway. And that is to provide information that

1 describes the air emission's contribution from
2 electric generation to the air quality of low
3 income and minority communities. And this is in
4 comparison with other emission sources.

5 And staff will also provide or describe
6 the demographic trends from 1980 to 2000 and for
7 the areas near existing electric generation
8 facilities. And this will include changes in the
9 number of people and their ethnicity.

10 And finally, staff is going to discuss
11 the issues that Native American peoples typically
12 have with development in the areas where
13 geothermal and hydroelectric projects are
14 typically occurring. In specific to geothermal
15 we'd be looking at a broad level at the known
16 geothermal resource areas.

17 And that concludes my presentation.

18 MR. McKINNEY: Okay, do we have any
19 government speakers on environmental justice or
20 socioeconomic issues?

21 MR. HILL: Good morning. My name's
22 Steve Hill. I'm with the Bay Area Air Quality
23 Management District. I didn't speak in the air
24 quality section because Mohsen said pretty much
25 everything I would want to say. Actually he said

1 everything I would want to say and a great deal
2 more. And the Bay Area District supports
3 everything that South Coast mentioned when they
4 spoke to you earlier.

5 I wanted to say that when I reviewed the
6 environmental justice component of the proposal, I
7 support almost everything that the staff is
8 proposing to do. I'm particularly glad to see
9 that the issues of siting and the issues of
10 dealing with existing situations, existing
11 exposures to populations are both being studied.
12 I think that's an important thing to consider.

13 One comment that I would like to make
14 has to do with the definition of an impacted
15 community. The 2003 report says in several places
16 that if the impact is mitigated or minimized to a
17 point where it's no longer significant that there
18 is no environmental justice issue remaining. And
19 I'd like to say from experience that that's not
20 the case.

21 That reducing the impact to what we
22 would characterize as a nonsignificant level does
23 not eliminate environmental justice concerns in
24 the communities. And that there are a lot of
25 things that ought to be done in terms of

1 interacting with the communities that should
2 continue even if the project is mitigated to an
3 non significant level.

4 That's not the focus of this report,
5 what you do in response to environmental justice
6 situations, but the statement that EJ is no longer
7 an issue in the community when the impact is no
8 longer significant, I believe that's inaccurate.

9 If you have any questions I'd be happy
10 to answer them.

11 PRESIDING MEMBER GEESMAN: Yeah, I
12 wonder if you'd elaborate on that a bit, Steve. I
13 had interpreted that comment, which I've heard
14 from the staff before in siting cases, as
15 primarily focused at mitigation measures.

16 But it seems like you have something
17 more in mind than simple mitigation requirements.
18 And I wonder if you'd expand on that for us.

19 MR. HILL: Yeah, one of the main
20 components of an environmental justice program is
21 communication effort that aims at targeting the
22 impacted community, a burdened community. And
23 involving it in the process so that issues get
24 raised at a point in the process early enough for
25 changes to happen.

1 And that involvement has to happen
2 before you've even developed all of your
3 mitigation measures.

4 PRESIDING MEMBER GEESMAN: Right.

5 MR. HILL: So while for some purposes
6 having this dividing line makes sense. For
7 others, if the community perceives itself as a
8 burdened community then we need to engage the
9 mechanisms for involving that community in the
10 decisionmaking process. That's the point I'm
11 trying to make.

12 PRESIDING MEMBER GEESMAN: Okay. Thanks
13 very much.

14 MR. HILL: Thank you.

15 MR. MCKINNEY: Any other government
16 speakers on this topic? If not, then I'll go to
17 the general public.

18 Okay, with that I'd like to -- oh,
19 excuse me.

20 MR. HANSON: Good morning, my name is
21 Dave Hanson. I work for SMUD and am involved in
22 the relicensing of our Upper American River
23 project.

24 My question is will you, in your
25 socioeconomic analysis, consider any of the

1 ancillary benefits, let's say, that hydroelectric
2 has on the socioeconomic sector? And I'm thinking
3 of things like recreation as an obvious value of
4 hydroelectric dams, reservoirs and recreation.
5 And other services provided, sort of maybe
6 tangential services to power generation.

7 There's water supply services that are
8 provided with hydro, and flood control, and other
9 socio and economic benefits.

10 MR. EDWARDS: No, we hadn't, and I
11 envision doing that. But that's an excellent
12 point. That could be easily blended into our 2005
13 report at this point. So, good comments, thank
14 you.

15 MR. HANSON: Thank you.

16 MR. MCKINNEY: Okay, with that I'd like
17 to shift us to the topic of once-through cooling
18 at coastal power plants. I'd like to introduce
19 Mr. Rick York, staff biologist here at the Energy
20 Commission, to increasingly a specialist in once-
21 through cooling issues. Let me load up his
22 presentation here.

23 MR. YORK: Good morning; once again, my
24 name is Rick York and I'm a staff biologist here
25 at the Energy Commission in the environmental

1 protection office. I want to talk to you today
2 about what we learned in 2003 Environmental
3 Performance Report, and also give you some
4 insights as to what our plans are for the 2005 and
5 beyond Environmental Performance Report.

6 Some basic quick review of once-through
7 cooling and the issues related to it. Facilities
8 that use once-through cooling draw their cooling
9 water from a nearby open water source, sometimes a
10 river, a bay, estuary, canal or the ocean.

11 Some of them are permitted to withdraw
12 rather large or huge volumes of water. Diablo
13 Canyon is permitted on a daily basis to withdraw
14 2.5 billion gallons of cooling water.

15 For some of these facilities this type
16 of water use can have rather significant effects
17 on the aquatic organisms that are contained in
18 that water. And the impacts are broken up into
19 two major type, impingement and entrainment.

20 Impingement is when the organisms are trapped on
21 the cooling water mechanisms, the structures, the
22 screens, the trash racks. This often affects the
23 fish primarily, larger fish.

24 Entrainment, by comparison, affects the
25 early life stages of fish and other organisms that

1 are in the water. And instead of being trapped on
2 the intake screens and the other mechanisms, they
3 are actually pulled through the cooling system and
4 the species are affected by the temperature change
5 in the water, mechanical damage that occurs to
6 them by being pulled through the cooling system
7 and also toxic stress.

8 So in 2003 we learned that California
9 has 21 coastal power plants that comprised 30
10 cooling water intakes, and their total permitted
11 volume for withdrawal and discharge is 16,700
12 million gallons per day. This is what they're
13 permitted to withdraw and discharge.

14 We also learned that 67 percent of these
15 intakes are in either the Sacramento Delta, bays,
16 estuaries, lagoons, harbors or immediately
17 adjacent to the shoreline. And EPA, over the
18 years, has determined that these sorts of
19 environments you would expect intakes to have
20 higher impacts in these sorts of environments when
21 you compare them to offshore deep water intakes.
22 This is not always the case, but in general this
23 is the conclusions that the federal EPA has come
24 to.

25 These areas of bays and estuaries and

1 near-shore areas tend to be more biologically
2 productive and contain early life stages of
3 aquatic organisms. And they're quite vulnerable
4 to impingement and entrainment.

5 We also reported in 2003 that the new
6 federal regulations of the Clean Water Act dealing
7 with existing intakes, primarily at power plants,
8 we expected those new regulations to be published
9 in 2004.

10 In the 2003 work and beyond we've
11 determined that once-through cooling systems can
12 have significant negative effects on aquatic
13 species and their habitat. Impacts under CEQA
14 have been determined to be significant and adverse
15 under the federal Clean Water Act.

16 Staff and other state and federal
17 agencies are concerned about the lack of current
18 information for these facilities. We really don't
19 have current impingement and entrainment data,
20 primarily entrainment data, for a lot of the
21 coastal facilities in California.

22 And we believe, the agencies believe
23 also, that these facilities represent a potential
24 cumulative concern to the coastal ecosystems in
25 California.

1 Some of the agencies that we've worked
2 with in siting cases and other issues, we've
3 worked with the Department of Fish and Game,
4 National Marine Fisheries Service, Fish and
5 Wildlife Service, Bay Conservation and Development
6 Commission, the Regional Boards, the water boards,
7 and also the Coastal Commission.

8 So a little bit of information about the
9 new federal regulations. They're quite complex.
10 This is just a very brief summary. They were
11 published in September of 2004. Earlier versions
12 were published in February of 2004.

13 These new regulations apply to
14 facilities that pump and discharge 50 million
15 gallons or more a day. And all of the coastal
16 facilities in California are covered by these
17 regulations.

18 The new regulations do require
19 impingement and entrainment impact analyses. And
20 the new regs also require that these facilities do
21 what they can to reduce impingement and
22 entrainment. Impingement, in particular, 80 to 96
23 percent reduction in impingement; and 60 to 90
24 percent reduction in entrainment.

25 Or, the regulations also require the

1 generators to determine that they're already
2 meeting those standards.

3 The administrating agency for the
4 National Pollution Discharge Elimination System,
5 the NPDES permits, is the local Regional Water
6 Quality Control Boards. And these permits are
7 renewed every five years.

8 A quick distinction between what we do
9 here at the Energy Commission under the California
10 Environmental Quality Act and the Warren Alquist
11 Act, the new federal Clean Water Act regulations,
12 the 316(b) regs that I've talked about and the
13 NPDES permit renewals. Those regulations focus
14 primarily on technological improvements that
15 people have determined are ways to help minimize
16 these impacts. That's the focus of the new
17 regulations.

18 So what do we want to do for 2005 and
19 beyond. We intend to work very closely with the
20 regional boards. There are seven regional boards
21 that administer the NPDES permits for the 21 once-
22 through cooled power plants for California. And
23 we've developed a series of questions. These are
24 just summaries of the questions.

25 I've contacted all the regional boards.

1 They've expressed willingness to answer questions
2 with regards to the NPDES permit renewal process
3 and required mitigation measures.

4 Here's one through six here. We like to
5 get information as to the current studies for the
6 impingement and entrainment analyses. We want to
7 know if any facility has been required to change
8 the intake to meet the new federal regulations to
9 lessen impingement concerns.

10 To lessen entrainment, a far more
11 difficult task, we want to know, among other
12 things, if a facility has been required to change
13 its intake flow velocity and/or operate their
14 facility differently.

15 We'd also like to get information of
16 actual amounts of cooling water that's pumped and
17 discharged by month for the reporting period.

18 We'd like to know if any new desal
19 facilities are added to any of these coastal
20 facilities.

21 And we'd also like to find out if any
22 facilities actually stopped using once-through
23 cooling.

24 And once again, we've contracted the
25 seven boards already and they've expressed a

1 willingness to answer these questions.

2 So what benefits do we see here at the
3 Energy Commission in tracking the NPDES permit
4 renewals, associated impacts, assessments, and any
5 trends that we see in the mitigation.

6 We think that the project-specific
7 information, as far as impacts and those sorts of
8 things, the new technology that's being considered
9 and possibly added, would be very useful to us in
10 future siting cases.

11 We also think working more closely with
12 the other agencies and stakeholder groups is
13 obviously always a good thing. And we think it
14 will lead to hopefully a better understanding of
15 the impacts of once-through cooling and possible
16 solutions to this difficult problem.

17 We also know that the PIER program is
18 working on a contract with the Moss Landing Marine
19 Lab to study and evaluate the effects of cooling
20 water intake structures on aquatic ecosystems.
21 And we feel the information gathered by us will
22 benefit them, as well, in that program.

23 And we have a brand new ocean action
24 plan from the Governor. And we'd like to see if
25 the NPDES permit renewal and its associated

1 mitigation answers the Governor's new call to
2 increase the abundance and diversity of aquatic
3 life in California ocean, bays, estuaries and
4 coastal wetlands.

5 And that ends my presentation. I'll
6 take any questions or comments.

7 MR. SMITH: Rick, going back to your
8 slide that had the requirements of 60 to 90
9 percent reduction, bullet number four, fourth
10 bullet. Can you clarify how the range is
11 determined? In other words, how would a regional
12 board determine whether it's 60 or 90 percent
13 reduction requirement?

14 MR. YORK: That's a very good question.
15 I think that we're going to have to learn right
16 along with the board what their guidelines are.
17 We know that some technologies like adding a
18 velocity cap to the top of the intake, deep water
19 intake, can have a rather beneficial effect on
20 reducing impingement concerns.

21 As far as entrainment we think that's a
22 much more difficult task. And we'll be looking to
23 see what sort of measurement that's used to
24 determine when if you are going to be effective at
25 this. I think it's pretty early in the ballgame.

1 And these are new percent requirements and we're
2 going to be very interested to see how they shake
3 out.

4 MR. SMITH: And just to clarify, again
5 on that fourth bullet, in the new regulations are
6 there any exemptions to that requirement of
7 meeting the 95 percent and 60 to 90 percent
8 reduction that allows an applicant or a power
9 plant operator to not meet those requirements?

10 MR. YORK: I'm not that familiar with
11 the new regs. It's 280 pages, and I'm learning
12 along with everybody else. They are very
13 difficult, very challenging. There's a lot of
14 discussion of options that are available to the
15 generators. I think the new regs are designed to
16 give the generators a lot of flexibility. So
17 we're going to learn right along with them.

18 Is that an okay answer?

19 (Laughter.)

20 MR. SMITH: Thank you.

21 MR. YORK: Sure.

22 MR. MCKINNEY: At this point I'd like to
23 open the agenda to additional government speakers
24 on this topic.

25 MR. YORK: We got letters of support

1 from the California Coastal Commission,
2 Baykeepers, Santa Monica Baykeepers and Heal The
3 Bay, two stakeholder groups that we worked with
4 down in southern California.

5 PRESIDING MEMBER GEESMAN: I saw the
6 latter letter docketed, but the version that was
7 sent up to me electronically did not have the
8 appendix that was referenced in the letter as to
9 additional data requirements that they suggested
10 that we include in our efforts. So if you could
11 share that with us at some point it would be
12 helpful.

13 COMMISSIONER BOYD: I had the same
14 situation.

15 MR. YORK: Yeah, I talked to the people
16 who were writing the letter and they'd indicated
17 they'd looked at what we were proposing and they
18 had a list of other ideas for us, as well.

19 MR. McKINNEY: And then any other
20 speakers on this subject, either from the producer
21 community, stakeholders, environmental groups or
22 anybody on the phone? Ms. Turnbull.

23 MS. TURNBULL: Thanks, Mike -- or Jim.
24 I just have a question. I'm wondering about the
25 Morro Bay repowering permit that was, I believe,

1 granted this summer. Will that plant have to meet
2 the new September guidelines?

3 PRESIDING MEMBER GEESMAN: I think the
4 Commission's view is yes. It's my understanding
5 that that -- we issued a favorable decision on the
6 AFC I think in September, maybe earlier. And it
7 is still pending before the Regional Water Quality
8 Control Board.

9 MS. TURNBULL: Thank you.

10 MR. YORK: Any other speakers on the
11 topic of once-through cooling? Going once, going
12 twice, okay.

13 MR. McKINNEY: Thanks very much, Rick.
14 Let me reintroduce myself. I also coordinate a
15 lot of the work that the Energy Commission does on
16 the hydropower issues. And I'd like to talk about
17 that part of our work.

18 We have three main parts to our
19 hydropower program here at the Energy Commission.
20 First is the electricity analysis office and the
21 work that they do on assessments, and these are
22 production issues, cost and systems level,
23 resource adequacy issues.

24 My office, special projects, and then
25 the environmental office staff do work on

1 environmental assessments. And also especially
2 beginning with the work we did last year trying to
3 integrate energy and environmental policy issues.

4 And then third we have our Public
5 Interest Energy Research program which is doing
6 research both on environmental issues and new
7 technologies. And Joe O'Hagan is managing a major
8 study on pulse flow issues for the Regional Water
9 Quality Control Board and the Department of Fish
10 and Game.

11 Last year we really expended
12 considerable effort in trying to understand
13 hydropower issues, energy issues and how these all
14 came together in a policy forum. We produced a
15 white paper called appendix D to the Environmental
16 Performance Report. You can see the report
17 information; that was something requested by then-
18 Secretary Mary Nichols.

19 Some of the findings, some of these are
20 self evident and I think some of them were
21 probably a surprise to some parties. First, hydro
22 is and always will be, I believe, a critical part
23 of California's electricity system.

24 More surprisingly hydropower contributes
25 to significant ongoing environmental impacts. We

1 have a major boom in relicensing right now.
2 There's about 5000 megawatts up for relicensing in
3 a 15-year period. And we believe that these
4 relicensing cases provide substantial opportunity
5 for restoration and mitigation.

6 The work that we've done that I'll
7 explain a little bit later shows that mitigation
8 and restoration can be done with really minimal
9 effects on the energy values associated with
10 hydropower.

11 And lastly, relicensing and selective
12 decommissioning, in our view, are really not
13 expected to affect statewide electricity system
14 reliability.

15 Just some of the general findings with
16 our work on hydropower environmental impacts,
17 we're really at a disadvantage in trying to
18 understand the full suite of environmental effects
19 from the hydropower system. It's huge. It really
20 covers every major river from the Klamath in the
21 north down to the southernmost river, I don't know
22 if that's the San Gabriel or further south, with
23 hydro.

24 So we relied primarily on the two
25 systems level. Reports have been done, one by the

1 U.S. Forest Service, which is the SNEP report.
2 And the other is the PUC's work in evaluating
3 Pacific Gas and Electric Company's 26 hydro
4 projects when they were put up for auction during
5 the evaluation proceeding. But I'll just let you
6 read for yourself some of the facts that we were
7 able to pull from those studies and from the other
8 literature.

9 Let me point out the bottom bullet here.
10 This was a surprise to us. If you define current
11 401 certification as something that meets current
12 guidelines and practices and findings of the State
13 Water Resources Control Board, we found that only
14 nine of the 119 FERC-licensed projects in
15 California actually met that standard.

16 One of the things that we did was really
17 to try to quantify what are the energy effects
18 from relicensing. This is an issue that's been
19 controversial at the state and federal level. So
20 Energy Commission Staff, in consultation with
21 Aspen, looked at 14 recent cases in California.
22 You can see the numbers, 567, nameplate capacity,
23 about 2800 gigawatt hours annual production.

24 Our review of those cases found only a
25 loss of 147 gigawatt hours on an average annual

1 basis, which was about a little more than 5
2 percent reductions. And you can see the context
3 for that by yourself at the bottom of the page.

4 We also wanted to look at the cost
5 issues associated with relicensing, because that's
6 also quite controversial at the state and federal
7 level. We contracted with Dr. Richard McCann,
8 who's with us in the audience today. He and his
9 team looked at 26 projects in California to try to
10 get really an objective view, or like what are the
11 cost issues associated with relicensing.

12 We have really good cost information for
13 many other sectors in the generation fleet in
14 California. Thus far we've had a hard time
15 getting similar information for the hydro sector.

16 This is a very short summary of Dr.
17 McCann's findings, and I think the simplest way to
18 say this is that production cost can be extremely
19 low for the older plants that are fully
20 capitalized. Revenues can be quite favorable.
21 And net margins can be fairly large.

22 And on the bottom I just show
23 information from cost production information and
24 revenues for combined cycle thermal plants. And
25 this is 2003 data.

1 At the request of numerous state
2 agencies in California the Energy Commission has
3 also looked at three cases where hydropower
4 projects were proposed to be decommissioned or
5 reoperated in order to restore salmon populations
6 in California.

7 These are PG&E's Battle Creek project,
8 the Trinity River Division of the Central Valley
9 Project, and the Klamath Hydro project, which is
10 up for relicensing at this point.

11 Salmon restoration has been a policy
12 objective in the state, but there have been major
13 questions about what does it cost, what are the
14 energy values, what are some of the cost issues.

15 This table just summarizes the power
16 values associated with these projects. You can
17 see Battle Creek is 36 megawatts; the Trinity
18 River Division is quite a bit larger, 497; Klamath
19 is 163 megawatts. And that's a combination of
20 peaking power and baseload energy.

21 The energy losses from these are really
22 quite modest. Battle Creek and the Trinity River
23 Division are in the 7 megawatt capacity range.
24 And again the 93 gigawatt hours or 287 gigawatt
25 hours are very modest numbers compared to what's

1 done daily and on a statewide level.

2 Klamath project is somewhat larger, but
3 again on a statewide perspective these are very
4 modest reductions. The issue for policymakers is
5 to kind of balance these energy losses with the
6 expected environmental benefits of restoration or
7 decommissioning.

8 And the numbers in the right-hand column
9 there I think are quite impressive, ranging from
10 42 miles of cold water habitat on Battle Creek,
11 which is a cold water perennial stream, very high
12 value habitat.

13 Trinity River Division, that river had,
14 I think, I want to say 66 or 70 percent of its
15 flows diverted to the Sacramento River Basin with
16 construction of that project. And the goal of
17 that program is to get the flows back to about 48
18 percent of the historic average.

19 The Klamath project, the work for NOAA
20 Fisheries and many other agencies indicates that
21 there may be as many as 300 miles of additional
22 habitat that's both tributary and mainstream
23 habitat, if there were to be a change in that
24 project.

25 Some of the findings from our work. No

1 adverse effect on resource adequacy issues.
2 Decommissioning can be a viable policy tool to use
3 if it makes sense, if you've got the right
4 expected benefits and the right level of expected
5 losses.

6 We call these low-power, high-impact
7 projects. There are a number of them in the
8 state, especially involved with -- where it might
9 be a viable thing to look at.

10 Replacement power has been really
11 available, although at higher cost. And I think
12 as both Ron Wetherall and Matt Layton mentioned
13 earlier in their presentations, we are looking at
14 potential peaking capacity shortages coming up
15 through the end of this decade. But that needs to
16 be distinguished from energy shortages on a more
17 daily basis.

18 And then lastly energy is one of the
19 issues to look at in decommissioning, because
20 that's quite a complex set of issues.

21 For 2005 staff proposes to continue this
22 work in various forms. First topic that we
23 proposed looking at is climate change effects on
24 hydroproduction. I've just seen just wildly
25 varying differences in future scenarios for

1 hydropower production and climate change.

2 So what we propose to do is to really
3 compile the existing data by working with
4 producers throughout the Colorado River Basin,
5 Sierra Nevada and Pacific Northwest to really try
6 to get a handle on how our generators and
7 regulatory agencies, planning agencies' thinking
8 about this and looking about it, and what type of
9 quantitative information may they have.

10 We also want to look at the literature,
11 and if there's enough data we'd like to try to do
12 some basic correlations, maybe some modeling, to
13 really understand what would be the power effects
14 from changes in hydrology from climate change.
15 That really depends on the data that's available.

16 For the hydropower energy and
17 environment work staff is proposing four modules.
18 First of these is to continue looking at the
19 California hydropower impacts. We have no
20 environmental baseline. Again, this is the second
21 biggest part of our generation fleet at 14,000
22 megawatts. No systematic footprint information.

23 We began a series of discussions with
24 our fellow agencies to try to think about what
25 metrics and data will be appropriate so we can

1 start to understand hydropower issues at the same
2 level that we understand air issues and water use
3 issues with our power generation fleet.

4 And the data requests that we'll talk
5 about later this afternoon, it's just a critical
6 first step in trying to really assemble just
7 rudimentary infrastructure information for this
8 sector of the fleet.

9 We also want to look at some of the
10 recent FERC relicensing cases and try to
11 understand what balance is FERC striking between
12 energy production and mitigation and enhancement.

13 Allowing for staff resources and data
14 we'd like to look further at small hydropower and
15 really try to understand the scope of its
16 environmental footprint and the energy values
17 associated with it. It's a huge part of the
18 system and we really just, as with large hydro,
19 don't understand very much about where it is, how
20 big the infrastructure footprint is, and what the
21 environmental effects might be.

22 Along those lines, the California
23 Department of Fish and Game up in Region 1 in
24 Redding has asked us to look at a proposal from
25 PG&E to decommission a small hydroproject called

1 Killart Cow Creek, which is on the Cow Creek
2 watershed that impacts I think it's winter run
3 Chinook salmon.

4 Lastly, with all the discussion about,
5 you know, costs and benefits across different
6 sectors of the generation fleet, and with climate
7 change, there's a lot of discussion about the
8 benefits from avoided emissions from hydropower.

9 We've seen lots of varying assumptions
10 and lots of different numbers. We want to look
11 through those and see what kind of a
12 standardization we can do, see if we have
13 recommendations of our own.

14 That's the end of the staff
15 presentation. If there are any questions from
16 Commissioner Geesman?

17 With that, let me ask if we have any
18 government speakers today on this topic?

19 MR. CURTIS: Good morning, my name's
20 Banky Curtis. I'm representing the California
21 Department of Fish and Game. We appreciate the
22 opportunity to be here; we certainly appreciate
23 the work your staff has done and the preparation
24 that's gone in to give us the opportunity to
25 provide this.

1 We really appreciate the efforts your
2 staff have made over the years to continue to
3 coordinate with our agency, communicate with us
4 and keep us involved. I think, as was mentioned
5 in the presentation, there are numerous
6 cooperative efforts that we're making, and you
7 have been a reliable and good partner in helping
8 us do some of that.

9 Our goal is to really minimize the
10 impact of hydroelectric facilities on the natural
11 resources of the state. I think in your 2003
12 environmental report you identified ongoing
13 significant adverse impacts to rivers, streams,
14 fisheries and water quality on those hydroelectric
15 operations. We certainly support that finding and
16 are willing and anxious to work with you to try to
17 resolve some of that.

18 I think your finding, that hydroelectric
19 operations have not yet been mitigated to the
20 level that the other power generation facilities
21 have been, is an extremely important piece of
22 information for us and we would be anxious to work
23 with you on that.

24 We are very involved in this. The FERC
25 has been -- will be relicensing 47 projects

1 between 1997 and 2016. And California's system is
2 the second largest in the nation. I think we have
3 more in the next 10 to 15 years, more relicensing
4 projects than anywhere else in the states. So
5 this is an area we intend to be very involved in.

6 Many of those areas are involved in the
7 Sacramento Valley/Central Sierra region that I am
8 responsible for. I've been involved in many of
9 these projects and recognize the significant
10 effect they can have on our system and will
11 continue to make this a high priority for the
12 Department so that we can continue to work with
13 you.

14 Now, of these projects, some of them are
15 large and some of them are small. But all of them
16 have the potential to have a significant impact on
17 whatever streamcourse that they're on. And we
18 think it's important that we look at each and
19 every one of those.

20 Many of the projects in California were
21 licensed over 50 years ago. And at that time
22 there was very little concern for anadromous fish.
23 Currently that has become a very significant
24 issue. It's been outlined in the presentation.
25 And we believe that this is an area that we will

1 need to work very closely with the Energy
2 Commission on over the next several years.

3 Some of the projects have little or no
4 releases to protect the aquatic systems that are
5 found below the projects. Some of them have a
6 year-round release that's the same. These are
7 having a very significant impact on the functions
8 of these riverine systems.

9 We believe it's essential that these
10 licenses provide for channel maintenance flows,
11 flushing flows, spawning flows and flows to
12 maintain water quality. All the things that allow
13 the natural system to function as it should.

14 We generally strive to recommend and
15 have the flows required in a new license that
16 mimic the natural hydrograph, so at least some of
17 these natural process can function and be restored
18 in some form.

19 One of the difficulties is many of these
20 licenses are -- these projects are relicensed one
21 at a time. And it's really hard to deal with the
22 whole ecosystem or the whole watershed.

23 There is actually a very large lack of
24 data that really outlines what the overall
25 environmental impacts of these projects are. And

1 we think it's very important that this data be
2 generated over the next several years so that we
3 can be able to mitigate what these impacts are.

4 We certainly appreciate your efforts to
5 partner with us and the other involved agency, and
6 to provide input to FERC in their new integrated
7 license system. I think your efforts, your staff
8 flew back to Washington and worked with our staff,
9 I think that was an extremely good effort and we
10 certainly commend you for that.

11 You've been very responsive to our
12 requests for assistance. Mentioned the Klamath
13 project; that was extremely important to us. We
14 think that's one of the essential components in
15 making that system function much better, is
16 dealing with that. Certainly the work with Battle
17 Creek and the Trinity River also very appreciative
18 of that.

19 We are very supportive of your PIER
20 program and its study on the pulse flows. We
21 think that is something that is extremely
22 critical; and we believe that those will provide
23 much valuable information that can help us a great
24 deal.

25 We certainly encourage you to

1 aggressively implement your workplan for 2005. We
2 think there are many things in there that can be
3 extremely important. We think if this data is
4 compiled and analyzed it will provide us with some
5 very essential information that will help us in
6 dealing with these complex issues.

7 The Department of Fish and Game takes
8 our public trust responsibilities very very
9 seriously. We've very anxious to protect the
10 public resources of the state; and we're very
11 anxious to work with the Energy Commission in your
12 efforts to do the same thing.

13 We thank you for the opportunity to
14 participate, and I would be happy to respond to
15 any questions you may have at this time.

16 PRESIDING MEMBER GEESMAN: Well, I
17 certainly want to thank you for your comments.
18 It's good to know that our efforts in the past
19 have been helpful to you. And I can commit that
20 we'll continue those, and continue them in a way
21 that hopefully will be of benefit to the
22 Department of Fish and Game and to other affected
23 stakeholders in this area.

24 MR. CURTIS: Appreciate that very much;
25 thank you.

1 MR. McKINNEY: Thank you, Mr. Curtis.

2 Do we have any other speakers from government
3 agencies?

4 With that I'd like to open it to
5 producers and environmental organizations, any
6 other groups that would like to speak.

7 MS. TRELEVEN: Good morning,
8 Commissioner Geesman, Staff.

9 PRESIDING MEMBER GEESMAN: Good morning,
10 Kathy.

11 MS. TRELEVEN: I'm Kathy Treleven from
12 PG&E. And we wanted to say first, in general,
13 that we very much appreciate the environmental
14 report's development, and do agree with you that
15 it's a key piece of the whole 2005 IEPR, which has
16 actually been married and joined with the 2006
17 long-term plan. And so we look forward to working
18 with you all on that.

19 We had two issues we wanted to raise,
20 one perhaps particularly minor, on the hydro
21 issues. When we saw the data request and reviewed
22 it, and saw the attempt to examine the
23 environmental footprint, and assess the original
24 condition that gave us pause.

25 As you know, many of our powerplants are

1 old. Our hydro plants come from predecessor
2 companies. And many of those plants are so old
3 that they are essentially built from the
4 infrastructure that the hydraulic gold miners were
5 using. So, we were kind of wondering, do you mean
6 when we took it over, or our predecessor
7 companies, or before the gold rush. So, we'll be
8 working with you as best we can on that one.

9 Secondly, Mr. McKinney mentioned the
10 CPUC's draft IEPR -- excuse me, draft
11 Environmental Impact Report. And as you may know,
12 we continue to have objections about drawing from
13 that draft material because it never went through
14 the full vetting cycle. And perhaps would have
15 benefitted from that.

16 But perhaps, since we're starting from
17 basic principles, and doing this catalogue of
18 issues and working with other agencies, perhaps we
19 can put that aside for this round.

20 Thank you very much.

21 PRESIDING MEMBER GEESMAN: Thank you,
22 Kathy.

23 MR. MCKINNEY: Additional speakers?

24 MR. BENNETT: Good morning,
25 Commissioners. My name is Russ Bennett from the

1 City of Redding Municipal Utility.

2 I believe that the data requests and the
3 work that is going to be put into it is an
4 unfunded state mandate for a local government.
5 And I respectfully request that the Commission
6 exempt municipalities from having to provide this
7 data.

8 PRESIDING MEMBER GEESMAN: You're
9 requesting that for all municipalities, or simply
10 for the City of Redding?

11 MR. BENNETT: Municipal utilities.

12 PRESIDING MEMBER GEESMAN: All municipal
13 utilities?

14 MR. BENNETT: Well, I'm requesting it on
15 behalf of the City of Redding.

16 PRESIDING MEMBER GEESMAN: Okay. Do you
17 intend to file a formal written request with this,
18 or is that the full content of your request?

19 MR. BENNETT: That's -- it's a very
20 simple request.

21 PRESIDING MEMBER GEESMAN: Okay. We'll
22 take it under advisement.

23 MR. ROTHERT: Good morning; my name's
24 Steve Rothert. I work with American Rivers. I'm
25 the Associate Director of American Rivers' dams

1 program. I appreciate the opportunity to address
2 you this morning and provide my comments on this
3 important issue.

4 American Rivers has been a leader in
5 hydropower policy and management reform for well
6 over ten years; has served as the Chair of the
7 National Hydropower Form Coalition and engaged in
8 dozens of hydropower relicensings across the
9 country.

10 Here in California we work closely with
11 the California Hydropower Reform Coalition, which
12 involves more than 15 organizations who, together,
13 are involved in every significant relicensing
14 ongoing in the state today.

15 American Rivers and the California
16 Hydropower Reform Coalition strongly support the
17 work that the Commission has done in the
18 environmental analysis we're discussing today, and
19 encourage the Commission to continue this work.

20 The CEC has provided important
21 information, both on the state level and in the
22 proceeding level, analysis of hydropower and its
23 role in power supply and in environmental
24 protection in our state.

25 No other agency, university or

1 nongovernmental organization has a systems level
2 understanding of the role of hydropower in power
3 supply and in environmental quality in this state.
4 And the Commission is best positioned to develop
5 and disseminate that information.

6 You've already seen the value of the
7 information developed in these reports related to
8 the role of hydropower in California's hydropower
9 supply; the scope and degree of the impacts that
10 hydropower has on California's rivers; and the
11 cost of improvements made to hydropower projects
12 in the way of power generation and in money that
13 are made in the relicensings.

14 What you might not have seen is the
15 important role this information can play in the
16 relicensing decisions to be made by FERC and state
17 agencies. FERC is required by law to balance
18 public interests in its decision of whether and
19 under what conditions to license a hydropower
20 project.

21 And FERC cannot make a sound decision in
22 favor of the public interest without a
23 comprehensive and full picture of the role of
24 hydro in energy supply and the impacts that
25 hydropower has on California's rivers and the

1 thousands and thousands of families who depend on
2 healthy rivers for livelihoods and food and
3 recreation.

4 The CEC is in a critical role and
5 critical position to provide that information both
6 to FERC and other state agencies as Mr. Banky from
7 the DFG has already suggested. And we fully
8 support the continued work in this area.

9 We would add to the metrics that have
10 been developed and are being developed related to
11 length of bypass reaches, river mileage, inundated
12 by reservoirs, reservoir capacity, peaking power
13 and other questions related to hydrology.

14 The question of whether the dams or the
15 projects in question have fish passage facilities,
16 both for anadromous fish and for resident fish.

17 Thank you.

18 PRESIDING MEMBER GEESMAN: Thank you for
19 your comments.

20 MR. MCKINNEY: Any other speakers on
21 hydropower issues?

22 Okay, with that I'd like to move to
23 water quality and water use. And introduce Mr.
24 Dick Anderson, who is supervisor of our water and
25 biology unit. I hope, Dick, that I got your

1 current version loaded up. Let's find it here.

2 MR. ANDERSON: Good morning; my name's
3 Dick Anderson and I'm going to talk a little bit
4 about water and what we've been doing for the
5 Environmental Performance Report in the last few
6 years, and what we plan to do for the upcoming one
7 for 2005.

8 A little background on water. I think
9 everybody knows that water is very valuable in
10 California, and that we have a lot of people, a
11 lot of area. And the water availability is either
12 staying the same or being reduced. The population
13 is growing like crazy, 47.5 million by the year
14 2020. Groundwater supplies are limited and over-
15 draughted in many parts of the state.

16 The amount from the Colorado River that
17 we can expect in the future is going to be
18 reduced. And future average year fresh water
19 shortages are expected in all but a few of our
20 regions, such as the north coast.

21 Fresh water can be a major constraint
22 for new power plants that use water for cooling.
23 Clean water is increasingly value. We've
24 mentioned that. Fresh water conservation is a
25 statewide goal. And there's a potential for

1 energy facilities to affect fresh water supply and
2 quality, surface groundwaters and marine bay and
3 esturine and ecosystems which have already been
4 discussed.

5 This is not my current presentation, so
6 bear with me as I go through this.

7 MR. McKINNEY: I'm sorry, Dick.

8 MR. ANDERSON: That's okay. This chart
9 simply shows you that for an average 500 megawatt
10 power plant if it's once-through cooled it uses
11 250,000 acrefeet of water per year. It's
12 nonconsumptive; it goes through and it comes back
13 out. There are some problems with what happens
14 with things that occur in it that are alive, but
15 anyhow the water is returned to the surface water
16 source.

17 But cooling towers, which are --
18 normally the types of projects we see here in
19 California, most of our new facilities use wet
20 cooling towers. About 4000 acrefeet a year, that
21 would be enough water for a year for 16- to 32-
22 thousand people. So it's quite a few people; it's
23 a city like Dixon for example, that would cover
24 the needs for them.

25 Dry cooling uses very little water; 230

1 acrefeet is just an estimate. It's a very
2 conservative estimate.

3 This is an example of some of the things
4 we're tracking. In the EPR for 2003 the
5 Commission adopted a water conservation policy
6 that may or may not be in this presentation
7 somewhere, --

8 (Laughter.)

9 MR. ANDERSON: -- but I'll read it to
10 you. The policy said: The Energy Commission will
11 approve the use of fresh water for cooling
12 purposes by power plants which it licenses only
13 where alternative water sources and alternative
14 cooling technologies are shown to be
15 environmentally undesirable or economically
16 unsound.

17 That policy is already benefitting
18 California's water. New projects we see proposed,
19 which haven't been many in the last few years, but
20 are proposing to use reclaimed or recycled water,
21 degraded water, or different alternatives like dry
22 cooling. So we're very happy about that, that we
23 can be a strong participant in California's
24 conservation efforts for water.

25 We expect to see this bottom piece of

1 the pie chart enlarge and the surface water and
2 the groundwater sections to start getting smaller.
3 The ocean estuary water one will get smaller just
4 because there won't be any new power plants in new
5 locations built that use one-through cooling
6 because of the Coastal Act. However, some of the
7 existing ones may be repowered or modernized.

8 And dry cooling will probably increase
9 as it becomes a more and more viable option.

10 Let's see what we have next year. A
11 second policy that I'll read to you, coming out of
12 the IEPR for 2003, helped do two things. It
13 helped conserve water and it helped reduce and in
14 many cases eliminate wastewater discharge, so we
15 wouldn't be contributing to degradation of the
16 surface water bodies in the State of California.

17 And that policy says the Energy
18 Commission will require zero liquid discharge
19 technologies unless such technologies are shown to
20 be environmentally undesirable or economically
21 unsound.

22 And so this is already reducing the
23 amount of wastewater that's a discharge from these
24 facilities. Many of our newer power plants have
25 zero liquid discharge. The ones that are being

1 proposed are proposing zero liquid discharge. So
2 this conserves water also as the material, as the
3 water that would be released is dried, it's
4 distilled and that water goes back and is reused
5 for cooling. And so you end up with just a very
6 dry cake of salt that gets disposed, but the water
7 keeps getting reused as it's dried. So it's an
8 excellent way to conserve water.

9 This just gives you an idea that when
10 during 1996 to 2000 we had only a small
11 percentage, the purple here on the left, that was
12 zero liquid discharge on project proposals.
13 Currently we have a number of projects that have
14 either been approved, are under construction or
15 they're under review. And you can see how large
16 the purple has grown, which means that they're
17 using zero liquid discharge.

18 This isn't on your slide, but some of
19 the goals for 2005, some of these are on the
20 slide, the first two are. One will be we'll
21 continue tracking the use of water, conserving
22 cooling technologies and the use of recycled
23 water.

24 We will continue to track increase in
25 use of zero liquid discharge technologies. We'll

1 continue tracking the use of water per megawatt of
2 electricity produced to detect trends in water use
3 efficiency. And we're also going to add tracking
4 of out-of-state cooling technologies. And the
5 water use per megawatt of electricity produced
6 that's out of state that's imported into
7 California, to start to get an idea for the types
8 of technologies and the amount of water used out
9 of state compared to California, who's trying to
10 conserve their water.

11 Thank you very much.

12 MR. McKINNEY: Are there any questions?
13 Thanks to my former friend, Dick. So, hopefully
14 we'll be friends again next time around when I get
15 the correct version of his presentation loaded up
16 on the machine.

17 With that I'd like to invite Natasha
18 Nelson to come up and talk about biological
19 resource issues.

20 MS. NELSON: I'm Natasha Nelson and I
21 help coordinate several staff members' work on
22 biological resources, so I'll be summarizing what
23 we looked at in 2001 and '3, and what we propose
24 to do for 2005.

25 Staff's first outline that there were

1 key biological needs, and these might also be
2 called objectives in biology. That in order to
3 have a sustainable system that we needed to
4 minimize the system impacts on biological resource
5 values.

6 This would be reducing effects on
7 aquatic resources, avoiding undisturbed lands and
8 instead building on something that's already been
9 disturbed, and to minimize offsite impacts
10 whenever you're doing construction.

11 We want to minimize impacts to sensitive
12 species and their habitats. They're already being
13 impacted by other processes. And to reduce avian
14 collisions and electrocutions with the
15 infrastructure wind turbines, transmission lines
16 and power plants.

17 We're also working to try to create more
18 partnerships with other agencies which can
19 identify critical information and studies that are
20 needed for their work and for our policymaking,
21 and to integrate our planning, permitting,
22 inspection and enforcement in other areas.

23 For each of the seven objectives staff
24 created 11 indicators which you'll see in the 2003
25 report, which will quantify our progress towards

1 these key needs or objectives.

2 The biological resource section covered
3 seven topics: habitat loss, nitrogen deposition,
4 renewable energy impacts, transmission line and
5 natural gas pipeline impacts, just basically for
6 linears; there's corridors they're sometimes
7 called. And we began just looking at out-of-state
8 power impacts. We looked at Mexico.

9 We also covered two topics which you've
10 heard presentations on already, once-through-
11 cooling trends and a shorter section on hydropower
12 impacts.

13 The major issues and findings we had
14 from 2003 was that case-specific information is
15 needed. We need to gather more data on nitrogen
16 deposition. The installation of transmission
17 lines and natural gas lines should be restricted
18 in areas of high biological value. This was
19 specific to wildlife refuge areas.

20 Renewable energy facilities and their
21 associated linears do have impacts and we should
22 consider them. And we should do more research and
23 evaluation on them.

24 The mitigation of aquatic impacts from
25 one-through cooling, as you heard from a previous

1 presentation, continues to be controversial. But
2 we really need more case-specific, unit-specific
3 information, and also cumulative level
4 information.

5 And for hydropower the agencies are
6 seeking to restore salmon and steelhead fisheries
7 during their relicensing cases, which you heard
8 there's 119 of them in our state, after years of
9 impact.

10 I'll go through some of the findings
11 from the seven topics. First we looked at habitat
12 loss from energy production. Just in the energy
13 facilities we've permitted here in the building
14 there were 225 acres of habitat loss from 1996 to
15 2002.

16 When we looked at the total system in
17 2002 there was probably about 10,500 acres in
18 direct energy production that would include
19 transmission lines and some of the fuel sources.
20 About 3900 of that was developed between 1996 and
21 2002. A lot of that is because a lot of landfill
22 gas and municipal solid waste facilities went
23 online.

24 Energy production also uses land for
25 fuel production and storage, or may fence off

1 open-space lands. This begins to get into that
2 question of what is a whole life cycle. What is
3 the whole impacting footprint of habitat for each
4 power plant.

5 This is just sort of a hypothetical way
6 that a utility can make their decisions on
7 creating 20 megawatts. If you have limited land
8 your traditional nuclear, coal, oil and gas are
9 going to be able to produce 20 megawatts for your
10 utility or your load in less than an acre.

11 If you want to try to develop other
12 renewable sources, such as solar thermal or free-
13 standing solar PV, you're going to have to find
14 somewhere disturbed or undisturbed that has about
15 100 to 200 acres of land in order to install
16 enough capacity. And this is noting that solar PV
17 efficiency could go up in the future, but this is
18 just a current efficiency of a solar PV panel.

19 The other issues that we'd like to
20 address further are whether or not areas such as
21 the open space land under wind turbines, the
22 landfills that are used to create methane gas for
23 waste energy facilities, and the actual reservoirs
24 behind hydroelectric plants should be counted as
25 occupied in order to create 20 megawatts of power.

1 As you can see it goes up and down if
2 you do or do not count these lands as occupied to
3 create 20 megawatts of energy.

4 Overall we'd like to work towards life
5 cycle analysis which would account for all the
6 lands needed to create a single megawatt of power.
7 And this means looking at fuel supply for nuclear,
8 gas and coal, as well as addressing the issues in
9 renewable that I just discussed.

10 The second part of our study was on
11 nitrogen deposition. As you can see in this
12 picture, nitrogen deposition can very quickly and
13 easily change an ecosystem.

14 On the left nitrogen deposition has been
15 left unmanaged and non-native grasses are
16 invading. To the right nitrogen management has
17 been put in place in order to counteract some of
18 the effects of nitrogen deposition on a sensitive
19 serpentine soil. Thus, you get many of the native
20 flowers and plants that are needed by sensitive
21 species, especially threatened and endangered
22 species.

23 Nitrogen deposition from new power
24 plants or repower projects has potential
25 cumulative impacts along with cars and other

1 industry sources when they're in the vicinity of
2 nitrogen sensitive habitats. Serpentine soils and
3 desert communities are a particular concern.

4 And nitrogen deposition from new power
5 plants and how they're being modeled is beginning
6 to be an issue of concern here in our siting
7 cases.

8 Our third topic was wind turbines. The
9 largest single issue continues to be bird strikes
10 with turbine blades. In 2003 we could not
11 identify any mitigation measures that were known
12 to reduce bird fatalities at wind farms. This has
13 changed since 2003 which I'll get into later in
14 the presentation.

15 But, as mentioned before, repower of
16 facilities is beginning; and the total amount of
17 rotor-swept area, and that's the area covered tip-
18 to-tip on the wind turbine blades in a circular
19 fashion, what is that total rotor-swept area of
20 the blade, is found to be highly contributory to
21 bird fatality risk.

22 And if repowering were to increase
23 rotor-swept area using bigger blades covering more
24 area than a lot of the small blades, you could
25 increase the number of bird collisions.

1 We have several findings on linear
2 corridors. We looked at transmission lines and
3 natural gas pipelines, and the recent proposals
4 that were taking place between 1996 and 2002. We
5 found most of them are located in urban and
6 agricultural areas, but we are concerned about the
7 number that were crossing the Mojave Desert and
8 the forested regions which show more severe
9 impacts and less ability to restore.

10 Some of California's rarest natural
11 communities were found within 2 kilometers of
12 transmission lines and natural gas lines that were
13 here in our state.

14 Electrocution and collision studies on
15 transmission lines we could not find a
16 comprehensive statewide survey. And to date we
17 still have not found one. It seems to be a case-
18 by-case basis.

19 The last two findings on this were that
20 new transmission projects have the possibility of
21 degrading habitat for state or federally listed
22 species or critical habitat. And we need to
23 consider those in the planning process.

24 And lastly, electric transmission lines
25 can cause wildfires. As you've noted we always

1 are concerned about wildfires in our system; and
2 on state lands the number of wildfires caused by
3 power lines is decreasing. And in part some of
4 that is because of aggressive fire management.

5 The last two additional items I wanted
6 to cover were we again recommend to be sustainable
7 that we try to put power plants on disturbed lands
8 where we can minimize the effects on sensitive
9 biological resources. And from a biological
10 resource perspective we recommend building
11 integrated solar PV panels and biogas fired
12 electricity generators at landfills or sewage
13 treatment plants.

14 The use of biomass plants and inforest
15 fuels could have wildlife friendly benefits if the
16 biological resource protections were integrated
17 into the planning of how to remove that downed
18 wood and use it in the plants.

19 Lastly, out-of-state power plants have
20 impacts on local areas but it can also impact
21 instate air and water quality. And in 2003 we
22 looked at Mexican power plants and the potential
23 impacts on Imperial County, especially the Salton
24 Sea, which is a large area for migratory birds.

25 Proposed topics for 2005 are to begin

1 the analysis of out-of-state power plants. Again,
2 this would be on how many acres it takes for some
3 of these coal-fired power plants to produce 20
4 megawatts of power.

5 Continue the review of avian
6 electrocutions, what research and mitigation have
7 come up since 2003. And continue to review other
8 trends in energy facility development.

9 This year will depend heavily on some of
10 the contract work that PIER, the Public Interest
11 Energy Research program, staff has proposed.
12 We're starting to first get site-specific nitrogen
13 deposition studies as draft here at the
14 Commission. And we'll be focusing in on San Jose
15 area results of nitrogen deposition data
16 collection.

17 And also a lot of the power plant siting
18 cases, the nitrogen deposition is estimated using
19 models. And we want to recommend possibly using a
20 different type of modeling system to calculate
21 those impacts in our siting cases, or from other
22 stationary sources if another district or agency
23 wants to review it.

24 We want to review perspective renewable
25 development locations, and their associated

1 transmission lines, which will be an issue. These
2 areas are currently being mapped by PIER, and then
3 we'll do the reverse. We'll look at what
4 potential biological impacts could occur if those
5 were put into place.

6 A new PIER report came out in August
7 2004 which reviews avian collisions with wind
8 turbines at Altamont Pass; and proposed a new type
9 of mitigation. And here you can see one of the
10 conclusions from that August 2004 report was that
11 the number of bird flights in zero to 40 meters
12 above the ground is quite high, as you can see
13 from the solid red bars that go from left to
14 right.

15 Existing wind turbines just happen to be
16 in that exact rotor-swept area, that exact height.
17 And 73 percent of bird flights are taking place in
18 that area, the height of the existing wind
19 turbines.

20 It was proposed that in order to repower
21 at Altamont that new towers be put in that were
22 taller. And if we took that recommendation only
23 59 percent of bird flights would be within that
24 rotor-swept height.

25 But the recommendation is that you could

1 do even better. If you just put your turbines on
2 the tallest towers, the tallest structures, you
3 could reduce the number of bird flights to only 16
4 percent, and hopefully get the corresponding less
5 bird hits in the turbine blades. And you can get
6 that report on our Energy Commission website if
7 you're interested.

8 So, those are the proposals we have. If
9 you have kind of terrestrial questions or
10 comments, I know some of you already made comments
11 on hydropower and once-through-cooling.

12 MR. McKINNEY: Okay, thanks very much,
13 Natasha. Next I'd like to introduce Eileen Allen,
14 who is our senior land use planner, to talk about
15 land use issues. Do we have Eileen?

16 Okay. We're quite a bit ahead of
17 schedule on the agenda, so she stepped out for a
18 bit.

19 (Pause.)

20 MR. SMITH: Jim?

21 MR. McKINNEY: Yeah, Mike.

22 MR. SMITH: While we're waiting I do
23 have a question. Through a number of these
24 presentations there's been reference to CEC
25 research and the PIER program in particular.

1 In going through this process I assume
2 there will be efforts taken to evaluate all
3 research that's being done for a particular issue.
4 For example, Natasha's presentation dealt with
5 avian mortality issues and potential mitigation
6 with respect to tower or blade heights.

7 I assume that you and the staff will be
8 looking broadly at all research that is being
9 carried out, and how the CEC's research programs
10 can integrate with, collaborate with these other
11 efforts in a broad manner, as opposed to
12 singularly focusing on PIER program and what
13 projects and added value the PIER program brings
14 to an issue.

15 As you know, the Energy Report is a
16 statewide policy document, and so to singularly
17 focus on PIER may do a disservice to the overall
18 policy debate that broad research can bring to an
19 issue.

20 So I'm just curious if there's --

21 MR. McKINNEY: That's a good question.
22 Starting at 2001 there was no cookbook that came
23 from the Legislature with the SB-110 legislation.
24 So we've really had to figure out how to look at
25 these issues from a policy perspective.

1 And we're also -- much of the work of
2 the environmental office has been regulatory in
3 nature, with our siting program. And we are
4 shifting, over time, to bring in new staff or have
5 staff kind of learn how to work say more in a
6 policy realm.

7 And a big part of that is understanding
8 the research done by academic institutions,
9 government labs, the commercial sector, which
10 provides really critical information on many of
11 these issues.

12 So we continue to learn how to do that.
13 And as you know, staff resources have been
14 somewhat constrained, due to our siting caseload
15 last year and the year before. So we are working
16 to expand that.

17 One thing we do look to PIER to provide
18 is information on current literature and research
19 to help us track that down so we can use that in
20 the assessment work that we do.

21 Does that answer your question?

22 MR. SMITH: Yeah, thank you, I
23 appreciate it.

24 MR. MCKINNEY: And Chris Tooker,
25 supervisor of the special projects and policy

1 unit, reminds me that one of the things we try to
2 do in the assessments work in the Environmental
3 Performance Reports is to identify areas that may
4 benefit from PIER research, so where there's a
5 nexus between energy production and environmental
6 issues.

7 So I'd now like to continue with our
8 agenda. This is Eileen Allen, senior planner in
9 the land use unit, who will talk about land use
10 issues.

11 And then, Natasha, stick around because
12 it looks like we're going at a good clip through
13 the agenda, so I think we can get to the data
14 requests before lunch.

15 MR. SMITH: Jim?

16 MR. McKINNEY: Yes.

17 MR. SMITH: Just a followup on Mr.
18 Tooker's comment. The converse is true, also.
19 That research, be it PIER-funded or other
20 government entity-funded research, can also
21 benefit from policy direction that the Energy
22 Report can certainly provide.

23 MR. McKINNEY: Yeah, very much so. And
24 although we have a fairly small building and
25 staff, some of the cubicle walls get pretty high

1 sometimes, so as part of the Integrated Energy
2 Policy Report we're really learning to work more
3 cooperatively with other groups within the Energy
4 Commission.

5 MS. ALLEN: Good morning. Thank you for
6 bearing with my absence during the break. This
7 presentation is on land use topics that we'll be
8 covering for 2005.

9 This slide has land use numbers that
10 we'll be updating for the 2005 report, and
11 checking on possible discrepancies with other
12 databases. It shows that energy facilities occupy
13 less than 1 percent of California's overall land
14 area, which comprises approximately 100 million
15 acres.

16 Regarding the first asterisk it's there
17 to note that this number doesn't include land area
18 covered by hydro reservoirs, areas within wind
19 farms that are not physically occupied by wind
20 turbines, and landfill areas.

21 The second asterisk refers to the fact
22 that this transmission line acreage number was
23 derived from a linear total of approximately
24 31,000 miles of transmission line with an
25 assumption of a 200-foot right-of-way.

1 Similar to the previous slide, during
2 2005 we'll be updating these numbers to account
3 for recent changes. Please note that the acreage
4 occupied by wind generation turbines, which is
5 shown as a negative number on the third line from
6 the bottom, relates to the trend in the industry
7 of replacing numerous relatively small turbines
8 with fewer but somewhat larger individual machines
9 having a greater capacity. And they tend to take
10 up slightly less acreage than the cumulative total
11 of the smaller turbines.

12 We think that the net decrease will be
13 temporary, though, given the interest in adding a
14 significant amount of new wind generation.

15 Moving on to the land use findings that
16 we had in the previous report. Forty percent of
17 the 1996 through 2002 siting cases required some
18 kind of local action, such as a general plan
19 amendment or zoning change.

20 We're observing that local and regional
21 planning efforts seldom set aside land for energy
22 infrastructure facilities, particularly large
23 facilities such as major power plants and
24 transmission lines. Sometimes there's some
25 discussion through something like a general plan

1 energy element, but in the local planning efforts
2 that involve city councilmembers, planning
3 commissioners and various stakeholders and the
4 public, these topics are not often coming up, not
5 nearly as much as new subdivision proposals, for
6 example.

7 In the rapidly growing areas in
8 California such as Riverside County, the Santa
9 Clarita and Lancaster areas in northern Los
10 Angeles County, and Placer County and San Joaquin
11 County in northern California, we're finding that
12 energy facilities, as far as new development and
13 repowering activity, are often occurring very
14 close to sensitive resources, such as schools,
15 homes and parks, and sometimes schools in
16 residential areas are being planned pretty close
17 to planned power plants. This concerns us as far
18 as overall land use planning and trends for
19 compatibility.

20 We'd like to work more with local
21 governments which have control over land use
22 decisions for effectively planning for new or
23 repowered generation facilities, and talk more
24 with them about the transmission line expansion
25 needs that we see, and where they envision new

1 corridors going. And then for existing
2 transmission lines, what are the options for
3 expanding them.

4 And overall, we're interested in more
5 ideas from the various stakeholders on the best
6 role for the Energy Commission in addressing
7 energy infrastructure needs given California's
8 rapid urban growth.

9 As far as our planned staff activities,
10 we're going to be dealing with continuing
11 questions about repowering of coastal plants.
12 We'll be initiating planning activities with the
13 Coastal Commission and the San Francisco Bay
14 Conservation and Development Commission.

15 We'll be completing something that we've
16 been working on this year which is a memorandum of
17 agreement with the Coastal Commission on power
18 plant siting review, and then working towards
19 implementing that memorandum.

20 I hope to begin working more with local
21 and regional governments to integrate
22 consideration of power plants and related
23 facilities, such as transmission lines, in the
24 local general plan process; using tools such as
25 PLACES. And the next slide will give you a little

1 bit of detail about PLACES.

2 And then collect land use data for the
3 energy facilities that the Commission licenses
4 including continuing to track project consistency
5 with local general plans and zoning.

6 Giving you more detail about PLACES,
7 it's a computer program which enables urban
8 growth, land use and transportation system choice
9 by members of the public and local decisionmakers.

10 The Commission Staff is currently
11 working on options for a new component of PLACES,
12 which is an energy infrastructure model that would
13 make local planning for generation, transmission
14 and pipeline facilities easier and more explicit.

15 PLACES was instrumental in establishing
16 the Sacramento Area Council of Governments'
17 national award winning Sacramento blueprint
18 process. This approach used geographic
19 information system technology to address future
20 growth scenarios and environmental implications in
21 the Sacramento region.

22 The San Diego Association of Governments
23 has also used PLACES to address the connection
24 between regional land use and transportation
25 planning decisions and energy use.

1 So, we're interested in increased use of
2 PLACES throughout California and other tools like
3 that. We hope to work much more during the coming
4 year with local and regional government planners
5 and decisionmakers.

6 That concludes my presentation. Are
7 there any questions?

8 PRESIDING MEMBER GEESMAN: Steven Kelly.

9 MR. KELLY: Thank you, Commissioner.
10 The issue about the rapidly growing areas and
11 energy facility development, about how much of
12 that is a function of local area reliability or
13 encroachment by residential or commercial entities
14 near, closer to a power plant?

15 MS. ALLEN: I haven't heard about local
16 reliability being a factor in local land use
17 planning decision processes. We see more and more
18 interest in affordable housing and urban areas
19 being pushed out toward areas that have been
20 traditionally more industrial or somewhat more
21 open and perhaps allotted to industrial land and
22 local planning process.

23 So, from the land use planners
24 perspective, I've seen it more as a combination of
25 nonenergy forces that are affecting the energy

1 system.

2 MR. KELLY: It may fit into the PLACES
3 model, but as the state seems to be moving toward
4 resource procurement on a local area of
5 reliability kind of factor, it may be important to
6 integrate that into your modeling.

7 MS. ALLEN: That's a good point; thank
8 you.

9 MS. TURNBULL: Eileen and Commissioner
10 Geesman, I know by now you know the League of
11 Women Voters is very supportive of land use
12 planning. And we've had positions in terms of
13 sustainable communities for a long time. And
14 we've tried to work with local communities across
15 the state.

16 And I have to admit that it is really
17 hard to get local governments really involved in
18 some of these issues.

19 We've heard recently from our Orange
20 County Leagues down there that there is a 14,000-
21 home development underway, moving very quickly;
22 and they've given really no thought to either
23 energy needs or water needs. And the momentum for
24 that unit is really, has everybody, you know,
25 truly quite troubled.

1 I guess what I'm trying to say is that I
2 think working with local governments may not be
3 the answer; and there has to be some kind of
4 regional thrust to look at, you know, the energy
5 and the water considerations, and the entire land
6 base for major sections of the state.

7 This population growth to 47 million
8 people over the next 15 years is really rather
9 frightening. So, unless we really take some very
10 proactive steps and being to think in a
11 comprehensive mode we're going to have some very
12 big problems.

13 And I think you're really there on the
14 cutting edge, and all you have to do is get the
15 support of the other natural resource people.

16 MS. ALLEN: I wish we could be even more
17 influential in affecting local land use decisions.
18 You're right, the city and county level may be a
19 bit isolated.

20 As I mentioned, we do hope to work more
21 with regional governments. We look forward to
22 working more with the League, the California
23 League of Cities, the County Supervisors
24 Association of California, which is now called
25 California State Association of Counties, to be

1 able to talk more about the statewide trends and
2 issues that we see emerging.

3 They're interested in working with us on
4 a variety of fronts actually, ranging from things
5 like transmission line corridors to petroleum
6 infrastructure needs, as well as the electricity
7 picture. So, it's just a question of fitting it
8 in and initiating the dialogue.

9 Another arm of this is working with the
10 building industry and their planners.

11 MS. TURNBULL: Um-hum.

12 MS. ALLEN: Thank you.

13 MS. NORTON: Hello; I'm Rita Norton. I
14 was interested in distributed generation and CEQA.
15 And from some of the work that we've been looking
16 at it appears as if there's a lack of
17 clarification of when CEQA is required for
18 distributed generation in its approval process at
19 the local level.

20 And I think the California Energy
21 Commission could provide some guidance on this
22 that would be very useful for the benefits of
23 distributed generation to be realized. And
24 without that, it exists as a barrier.

25 MS. ALLEN: From the emissions

1 perspective, distributed generation tends to be
2 under the purview of the air districts. It's too
3 bad Mr. Nazemi is not in the room. I don't know
4 whether he's gone or whether he's returning.

5 But we share your concern about
6 distributed generation and --

7 MS. NORTON: It's exactly that point.
8 The ball goes back and forth from local government
9 to the regional air quality board, and the local
10 government, if it was given some bridgeway to work
11 with the air districts on that, and make that
12 clear, so I think that leadership could come from
13 the Energy Commission through local governments.

14 Because right now it's not clear whether
15 it's the local government decision or the air
16 quality district decision about a whole variety of
17 impacts of distributed generation that include air
18 quality, but it's not only air quality.

19 Especially if we see cumulative
20 applications for distributed generation, not just
21 one. We want to see cumulative, when would the
22 CEQA requirement kick in; when would it not.

23 MS. ALLEN: Thank you for your
24 confidence in us. I think Chris Tooker can add to
25 this discussion.

1 DR. TOOKER: Yes. I just want to let
2 you know that I think about four or five years ago
3 we did a report on permitting processes for
4 distributed generation which investigated a lot of
5 those questions. And if you haven't looked at
6 that report, I can get it for you.

7 But I thought that was a useful first
8 step. And it did identify a lot of ignorance and
9 inconsistencies regarding the issues you've
10 raised. But it's a good start and provides a lot
11 of references.

12 MR. McKINNEY: Do we have any additional
13 comments on any of the items we've covered in the
14 scoping portion of today's workshop?

15 Commissioner Geesman, I'd like to note
16 that we've received numerous comments on
17 distributed generation, both from an air quality
18 perspective and a land use perspective. That was
19 not something that was in our staff's initial
20 workplan proposal, and it seems to me that we may
21 need to revisit this and see what we can do in
22 that regard.

23 PRESIDING MEMBER GEESMAN: I think
24 that's a good idea.

25 MR. McKINNEY: Okay. With that I would

1 like to move to the second main part of the
2 agenda. I also want to do some agenda management
3 as we do so.

4 Natasha Nelson is going to make two
5 presentations on staff proposals for environmental
6 data collection to energy producers and agencies.
7 I think those take about 20 minutes all together.

8 I'd like to get a sense for how many
9 people in the audience would like to speak on the
10 data collection proposal. Just get a show of
11 hands.

12 Okay, so it looks like we'll be able to
13 move through this while Commissioner Geesman is
14 still with us, which I very much appreciate your
15 time.

16 So, with that, let me turn it back over
17 to Natasha Nelson who has just done a superlative
18 job on managing the staff's work on formulating
19 the data requests here.

20 MS. NELSON: The forms and instructions
21 are on our website, but I did make 20 copies. And
22 so if anybody wants to look at those they're ready
23 and available on the back table while we're
24 getting the presentation set up.

25 MR. McKINNEY: And we also have

1 additional copies of the PowerPoint presentations
2 that are out there on the table.

3 MS. NELSON: Good morning, thanks again
4 for sticking it out. I know everybody's starting
5 to get a little hungry, so I'll go through this
6 presentation and we'll take comments and decide if
7 we want to move to a more detailed discussion of a
8 particular form.

9 This first presentation is just on the
10 overview of all the forms and instructions which
11 are equivalent to data requests that we've
12 prepared as staff and the environmental office
13 that will help us prepare the 2005 Environmental
14 Performance Report.

15 If you need a copy of it and they run
16 out today, please just contact me. my email is
17 here and phone number, and I'll make sure you get
18 a written copy if you don't have access to our
19 webpage.

20 I wasn't sure if this would be broken up
21 from the earlier presentation so I just wanted to
22 give basic background. That the Environmental
23 Performance Report is a critical part of the
24 overall Energy Report, which we're here to review.

25 The EPR examines the environmental

1 attributes of 6000 megawatts of power. But as we
2 noted in Jim McKinney's presentation, the lack of
3 environmental data really hinders us in being able
4 to fully report on the performance trends in the
5 state.

6 And so staff wanted to take action, so
7 they reviewed the data sets that were used in the
8 2001 and 2003 Environmental Performance Reports.
9 We went ahead and had some informal meetings with
10 other agencies on the availability of data that
11 they have and whether they thought there was
12 better data from specific research that we should
13 be investigating.

14 We had a total of, I think, six just
15 sort of informal workshops that ranged from an
16 hour to two hours with these agencies, trying to
17 find out if we are missing any pieces.

18 We also investigated all the databases
19 we could find on the internet. I have a whole
20 table of them, slew of them, and what their
21 restrictions might be.

22 Sometimes a database may only look at
23 investor-owned utilities or might only look at
24 facilities greater than 50 megawatts. And that
25 would restrict us from looking at the whole state.

1 So the questions that remained
2 unanswered we're requesting today in the forms and
3 instructions which you can get from the back of
4 the room. And we're here to take your comments as
5 a producer, or as another stakeholder, on whether
6 these data requests will be effective in helping
7 us evaluate status and trends in California's
8 energy infrastructure.

9 Each form was assigned a number.
10 There's 1001 to 1009. I'll start with 1001 which
11 is this power plant identification, the physical
12 location.

13 We already have a GIS system, but as
14 you'll note you can always be more accurate. We
15 have GPS systems, we have real numbers, real
16 actual locations that we can try to get in 2005,
17 which are probably a lot better than the ones we
18 had in 1975.

19 We want to correct any inconsistencies
20 that exist between databases. Sometimes power
21 plant names change and we just aren't matching up.
22 We always get a mismatch of acres, a mismatch of
23 megawatts produced. We want to try to correct
24 those inconsistencies. We've been working quite a
25 bit with the electricity analysis office to make

1 sure our two data sets match.

2 We also want to eventually create a
3 translation or cross-over type of data sheet that
4 links our data to federal data collection. And
5 this will be key -- the key to this really is what
6 everybody uses, an ID code; and everybody has a
7 unique ID code, if they're on a federal, state or
8 local database.

9 1002 relates to hazardous air pollutant
10 emission factors. And this will make a complete
11 regional analysis of the hazardous pollutant
12 emissions for power plants that are greater than 1
13 megawatt in generation.

14 So, as you can see, we've expanded.
15 We're not just talking about 50 megawatts, we're
16 talking about everything down to 1 megawatt.

17 We're not trying to replace those
18 facilities that already make their submittals to
19 the air toxins hot spot reporting; we're just
20 trying to fill in the gaps. If you're already
21 reporting to them, just let us know what your ID
22 code is and we'll look you up in the other
23 database.

24 1003 and 1004 will deal with the
25 criteria and noncriteria emission factors. Again,

1 this will help us create a regional analysis
2 because we'll have unit-by-unit data, not just a
3 large accumulation, or a large aggregate of
4 facilities on a region.

5 If your facility doesn't have this data,
6 that's okay. If you haven't done a source test
7 the air district doesn't require it. If you don't
8 have a continuous emission monitoring system,
9 we'll go ahead and we'll use the USEPA agency
10 publication AP42, which if we know what your
11 generator is, for instance if you have an LM6000
12 generator, we know what your typical criteria and
13 noncriteria emissions will be. And we'll put that
14 into the database.

15 It came up earlier about the inventory
16 of greenhouse gas emissions. And if you look at
17 the forms and instructions we aren't specifically
18 collecting greenhouse gas emissions from every
19 combustion power generation facilities. There's
20 already a large amount of data to draw from.

21 And as noted earlier, the California
22 Climate Action Registry participants will soon be
23 supplying their direct emissions, fugitive
24 emissions and indirect emissions, which is the
25 whole component of the greenhouse gases, following

1 a well-reviewed protocol. That protocol is
2 important so that everybody is consistently
3 measuring their pollutants.

4 The reporting requirements for the
5 registry should start sometime next year, is that
6 they do CO2 for the first three years. And by
7 after that they'll do all six gases that are found
8 in the 1997 Kyoto Protocol.

9 Form 1005 is power plant cooling
10 technology. When you saw Dick Anderson's
11 presentation you saw that there's many water
12 sources, and there's also a change in how the
13 technology used to cool the power plant.

14 This is just a sample graph of the
15 proposed cooling methods for the plants that were
16 currently under construction or review at the
17 Energy Commission. The number of wet cooling
18 towers, we're consistently reviewing those. But
19 the number of dry cooling towers we hope will
20 eventually change. And as we monitor trends in
21 technology over time that will become a bigger
22 piece of this pie.

23 1006 is just your monthly volume of
24 water. We may know what your permitted volume is,
25 but we don't actually know what your actual use

1 is. And this will monitor trends in water use and
2 how those water use compares with other statewide
3 demands.

4 We're working closely with the
5 Department of Water Resources which publishes
6 bulletin 160 every five years. Bulletin 160 looks
7 at all water uses, industrial, commercial and
8 residential. And they hope to eventually split
9 out industrial into electrical versus all other
10 industries, but they don't have that data at this
11 time. We're going to be the first people taking
12 on that task.

13 And we hope to get a more comprehensive
14 profile of water that's consumed by energy users
15 on a month-by-month basis.

16 1007, we'll look at wastewater discharge
17 methods. Those include zero liquid discharge,
18 which was mentioned in an earlier report, dumping
19 back into a waterway, a river, or into evaporation
20 ponds.

21 We'll kind of get an idea of how many
22 energy facilities are currently using each
23 discharge method; how big their waste is in terms
24 of tons or acrefeet; and then look at how that
25 compares to the electrical generation that they

1 are generating to see that sort of energy
2 efficiency that Jim McKinney mentioned before.

3 And waste discharge, as noted in the
4 2003 report, is an important pressure that each
5 and every facility must look at. There's going to
6 be ongoing pressures for nonpolluting approaches
7 to treating wastewater which will continue to make
8 wastewater treatment and its disposal a complex
9 issue which requires our agency's participation.

10 Sorry that that title got a little
11 messed up in this presentation. There's really no
12 statewide compilation of hydropower facility data.
13 It's on an individual FERC-licensed basis.
14 Responses to these forms will start to sort of be
15 fundamental structure of the data set. And staff
16 would eventually be adding more environmental
17 attributes to the data set over time, relating to
18 things like fisheries and water quality.

19 Form 1009 is the socioeconomic benefits.
20 As Dale presented to you earlier, there's often
21 economic data but it might be aggregated at a
22 scale that the individual power plant and its
23 impact on local communities is completely hidden,
24 or may be restricted to only facilities of a
25 certain size.

1 We understand that some of this
2 information could be proprietary, and if you go to
3 our website the Executive Director has made a
4 statement on how we will keep this sort of
5 information, I guess in a term, confidential. Or
6 we'll only show the data at scales where the
7 identification of the owner is somewhat masked, or
8 will be masked.

9 We did consider a few other data forms
10 that we did not forward because we found
11 additional sources. We initially tried to collect
12 data on thermal energy from cogeneration plants,
13 on wind turbine design, and on once-through
14 cooling.

15 But when we began to work with the data
16 sets and with local, state and federal agencies,
17 the other Energy Commission Staff, such as in the
18 energy analyst office, and by exploring current
19 data sets on available websites, we found much of
20 the information seems to be available.

21 We do reserve the right to ask more
22 information after we try to populate our database
23 and we find gaps. But we hopefully will get a
24 good initial database that covers a majority of
25 the power sector using EIA data sets, the wind

1 project performance reporting system, and the
2 surveys of the regional boards that Rick York
3 spoke of earlier.

4 These forms aren't just my creation.
5 There were certainly a large contribution by
6 staff, air staff, Matt Layton, Mike Ringer and Joe
7 Loyer; greenhouse gas staff Pierre du Vair and
8 Gerry Bemis; water staff, Dick Anderson and
9 Lorraine White; those staff involved in
10 hydropower, Jim McKinney, Stuart Itoga and Joe
11 O'Hagan.

12 Just for general terrestrial issues,
13 Natasha Nelson, Rick York, Melinda Dorin. And
14 Melinda's doing a lot of our wind work. For
15 socioeconomics Dale Edwards and Joe Diamond; and
16 finally, renewables isn't something that the
17 siting division permits very often. So I'd like
18 to give a special thanks to George Simons, Todd
19 Lieberg and Drake Johnson for keeping us on the
20 straight line with regard to renewables. They're
21 our liaison.

22 So, again, if you have general comments
23 or questions for the record, you know, come up to
24 the microphone and then I'll try to query if
25 there's a specific form that we want to talk about

1 so that we can use our time effectively.

2 MS. TRELEVEN: Kathy Treleven, PG&E. I
3 have one small comment on behalf of PG&E's
4 security department. The form 1001 asks us to
5 provide specific location information for our
6 energy facilities.

7 And you may be aware of the FERC
8 proceeding CEII, rather confidential energy
9 infrastructure information, or a similar
10 proceeding under the NRCs. And we aren't so much
11 concerned about fundamental confidentiality of
12 this information. We understand why you would
13 need it and have no objections at this time in
14 providing it.

15 But we would dislike seeing a very
16 comprehensive list posted on the website or in a
17 report that details the locations of each of these
18 plants. And we'd appreciate your consideration in
19 that. Thank you.

20 MS. NELSON: Yes, we do the same with
21 our transmission lines. Those aren't typically
22 published. But it does make a large difference,
23 especially if somebody from staff asks what's
24 within a 200-meter buffer. Where that point is,
25 you know, you may or may not encompass a sensitive

1 species or may or may not encompass another census
2 tract with a particular minority population.

3 So, we're just trying -- we will work
4 with our GIS team to isolate that from being
5 published.

6 (Pause.)

7 MS. NELSON: So we do have the nine
8 forms. And if you look at the proposal, the
9 notice of the Committee workshop on attachment C
10 there's also a summary of those.

11 Are there people here who want to talk
12 to staff? I tried to ask staff to be available to
13 answer kind of those minor questions of, well, we
14 don't measure in acrefeet, we measure in liters
15 per second, sort of questions.

16 So, can I get a show of hands if people
17 want to remain after the workshop and talk
18 specifically to one of the staff members that I
19 listed up there about an air quality, water,
20 socioeconomic form or data request?

21 Okay. Which one?

22 UNIDENTIFIED SPEAKER: (inaudible).

23 MS. NELSON: Okay. Anyone else? And
24 certainly I'll remind you you can submit comments
25 until November 29th. That to the dockets, with

1 just a note that you're reporting for the November
2 15th workshop, because there's a lot of workshops
3 going on and we want to be sure we get those
4 comments to the staff that can give you the best
5 response.

6 (Pause.)

7 MR. McKINNEY: In the interest of time,
8 Natasha is thinking that the second part of her
9 presentation may be stuff that we've already
10 covered in this first part of the presentation.

11 We've got about 15 minutes left of
12 Commissioner Geesman's availability. I'd just
13 like to repeat Natasha's request, if this would be
14 the last public opportunity to make oral comment
15 or question on any elements of the proposed data
16 requests.

17 Perhaps the gentleman from the City of
18 Redding, did you want to speak on the record, or
19 is this more a staff-to-staff level discussion?

20 MR. BENNETT: (inaudible).

21 MR. McKINNEY: Okay. So we can work
22 with you perhaps in the little bit of time
23 remaining before the lunch was scheduled, or we
24 can all go take a lunch and come back and work
25 with that.

1 It seems that we have no further public
2 questions or comments on the data collection
3 proposal staff is putting forward for the 2005
4 Integrated Energy Policy Report, or for the
5 scoping portion of the session that we held
6 earlier.

7 Just let me make a few comments in
8 closing in terms of final process. So, again, if
9 you can submit any written comments to the record
10 prior to November 29th, that really aids us in
11 understanding the full scope of the comments and
12 making sure that they're addressed and understood
13 by staff and the Commissioners.

14 In terms of basic timelines, I believe
15 we're proposing to have the data requests
16 finalized by December. And have them go out in
17 December, with responses coming back in February.
18 Which will give us a little bit of time, a couple
19 of months, to incorporate those data responses
20 into staff analyses.

21 Initial drafts of the Environmental
22 Performance Report sections will be formulated in
23 late spring, early summer. There may or may not
24 be another workshop to review those sections.
25 We'll see what the level of comment is. And the

1 Commissioners have an extremely busy schedule with
2 all the different parts of the Energy Report going
3 on for 2005.

4 With that I'd like to just conclude
5 staff's part of the presentation. I thank staff
6 for their work in preparing for this; really thank
7 the public. I'd like to offer Commissioner
8 Geesman or Advisor Smith any last comments in
9 closing this workshop.

10 PRESIDING MEMBER GEESMAN: I just thank
11 everybody for your participation.

12 We'll be adjourned.

13 (Whereupon, at 12:32 p.m., the workshop
14 was adjourned.)

15 --o0o--

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I, PETER PETTY, an Electronic Reporter,
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